
FHC – *P. kernoviae* notes

27 April 2006

- *P. kernoviae* was first detected in an isolated area of a property growing cherimoya (*Annonas cherimola*) in Hokianga, Northland. The property owner submitted samples of mummified fruit to MAF in 2002, stating that the symptoms had been observed on the property since the early 1990s. MAF identified the fungus at the time as *Phytophthora hibernalis*, and placed samples in the International Collection of Micro-organisms from Plants located at Lincoln, Canterbury.
- In 2005 researchers from a number of CRIs undertook an Operational Research project to determine the status of *Phytophthora* species in New Zealand using molecular techniques. The result of this work was that the sample believed to be *P. hibernalis* was in fact consistent with *P. kernoviae*, which was discovered for the first time in 2003 and described in 2005 by UK scientists working on Sudden Oak Death Syndrome.
- Although *P. kernoviae* has so far been reported from only a few species, these are in widely different families, and the host range is likely to increase as further research is conducted. This fungus can have severe effects on susceptible shrubs and trees, for example, rhododendron, magnolia and oak.
- To ensure that material is not removed from the property and the fungus spread, BNZ has made *P. kernoviae* an unwanted organism under the Biosecurity Act.
- New Zealand has obligations under World Trade Organisation agreements to report the incidence of new organisms in New Zealand. Because it has potential to cause serious damage to a wide range of plant species, *P. kernoviae* has implications for exports of some New Zealand plants and plant products.
- BNZ has learned that the *Phytophthora* species are now classified as members of the Chromista, which is a separate group from fungi, plants and animals. *P. kernoviae* can therefore be referred to as a ‘chromist’
- A soil sample collected from an area of kauri (*Agathis australis*) exhibiting symptoms of die-back in Trounson Kauri Park in Northland in 2003 has been shown to contain *P. kernoviae*. Other pathogenic *Phytophthora* species were present in the samples collected, and the *P. kernoviae* isolate was not collected from kauri tissue.
- *P. kernoviae* is therefore known to be present at two separate locations in Northland (the Hokianga site identified in February and the kauri site that has subsequently been identified). It may also be present at other locations.

Trade Restrictions:

- Based on Sudden Oak Death (*P. ramorum*) information restrictions have been placed on exports of pine and Douglas fir to Australia - the assumption being that all of the host species of *P. ramorum* are potential hosts of *P. kernoviae*. Currently all wood exports must be heat treated or CCA treated.
- The trade restrictions are viewed as highly unreasonable and unjustified. The two species are very distinct species and the fact they both share some similar hosts and symptoms does not justify the inclusion of all host species in a combined host list.
- MAF has written a comprehensive reply to Australia's restrictions with a firm message that the trade restrictions are at odds with international trade agreements. To date there has not been a reply.

Other:

- TAG to be held on 8 May to discuss current situation and develop recommendations for future actions.
- An interim survey has been completed and results are being assessed. Samples from soil, leaf litter and kauri trees were collected at the two known sites of infection.