Taking back control: A valid case against pathogens in macadamia

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A range of pathogens cause disease in macadamias. For most of the pathogens, their impact on macadamia productivity and effective management strategies are still largely unknown. As well as the threat from endemic pathogens, an increase in global travel and trade, has resulted in more rapid spread of pathogens worldwide. This poses additional challenges to managing plant health. This problem is already apparent in many other plant industries and macadamia is not immune to this threat. Recent global increase in macadamia production area worldwide has put pressure on the crop, and increased the risks of resurgence or new encounters to major pathogens in the macadamia production system. Efforts to keep disease pressure low and reduce potential global impact on macadamia production, requires a proactive and coordinated response. While some pathogens may initially be found in limited production areas, these could potentially escalate to cause significant problem for the whole industry. Preparedness through well-coordinated response to information exchange, for surveillance and rapid diagnostic assays, is a key element of plant biosecurity. In recent past, several new pathogens have been reported to cause significant economic losses in macadamia. A case is made for research against major pathogens/diseases such as bacterium, *Xylella fastidiosa*; several species of *Phytophthora*; and flower blight complex in macadamia. Host resistance is an essential component of integrated disease management strategy. Varietal susceptibility to most of the endemic and new pathogens in macadamia across the world have not been well established. This report presents an overview of recent advances in host-pathogen interaction research on diseases in macadamia and concludes with gaps in knowledge. It highlights the rationale and content for an international collaborative research in macadamia.