

PaDIL - A Virtual Diagnostic tool to assist in plant pest diagnostics

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Fundamental to minimising the risks of pests crossing national or internal borders is to be able to rapidly diagnose them accurately and efficiently. Activities aimed at lowering risks, such as surveillance, or managing plant pests need to know what species they are dealing with. Added to the complexity of this task are two factors: first, the majority of pests encountered are not local, hence diagnosticians often require a world-wide knowledge of the pests; and second, there is a worldwide decline in the availability of diagnosticians and taxonomists for plant pests. To begin to address these issues, PaDIL (<http://www.padil.gov.au>), a Virtual Diagnostic tool was developed to harvest reference specimens from recognised Museums and Herbaria around the world with the view to building a Virtual Pests collection. PaDIL provides high quality, colour, diagnostic and symptom images (almost 40,000 images) and basic information for almost 2000 recognised plant pests species (ie. taxonomy, distribution, hosts etc). The interactive software allows users to Navigate and Explore the datasets and allows the user to create their own views/outputs to the results returned to their queries. PaDIL is freely accessible, requires no software downloads and the images are free to use under the Creative Commons License for non commercial use. The primary target audience of PaDIL is plant biosecurity diagnosticians with some level of experience; however, the image-based website can be easily used by specialists and non-technical users. PaDIL is an example of transitioning taxonomy from a Museum-based resource into an Information-based resource.

