**Dr Geoff Norton**
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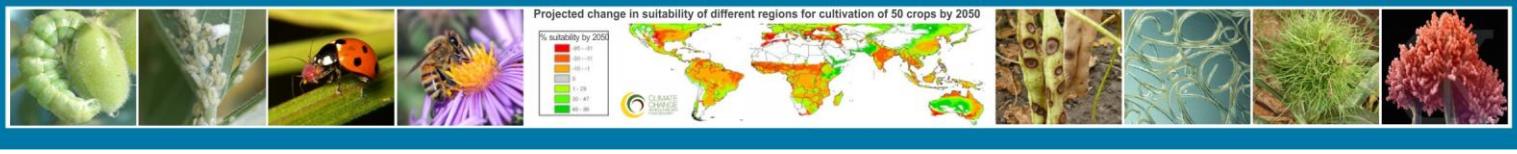
**Biography – Dr. Geoff Norton**

Geoff Norton is currently Adjunct Professor at The University of Queensland (UQ), Brisbane as well as an advisor to the software development company - Identic Pty. Ltd., a spin-off company involving staff initially based at UQ. Previously Geoff was Director of the Centre for Pest Management, Imperial College, University of London (1984 – 1992); Director of the Cooperative Research Centre for Tropical Pest Management, CSIRO, Australia (1992 – 98); and Director of the Centre for Biological Information Technology at UQ (1998 – 2012).

The overall theme of Geoff's research over almost 50 years has been at the interface of socioeconomics and ecology. This has led to the development and worldwide application of systems analysis, stakeholder involvement processes, and the development of decision support tools that address specific resource management problems, with a particular focus on decisions involving crop protection issues. He has published over 100 journal articles, books and book chapters in this field. More recently, Geoff works with the software team at Identic Pty Ltd, the group that developed the Lucid suite of software, used by taxonomists, agronomists and other specialists to author multimedia, interactive identification and diagnostic keys or tools. These tools are deployed via USB, CD/DVDs, online, and as Lucid Mobile smartphone apps to support decisions made by researchers, quarantine officers, crop advisors, farmers, etc..

Geoff is currently President of the International Association for the Plant Protection Sciences (IAPPS).




**Presentation Title:**

***Digital Identification and Diagnostic Tools for Biosecurity and Plant Protection***

**Abstract:**

The earlier invasive insect, weed and pathogen “pests” are detected and correctly identified, the greater the chance of eradicating or at least effectively managing the problem. Clearly, providing accessible identification support tools to quarantine and agricultural officers and the community in general can be critical to this early response. Diagnostic support tools, to help farmers and advisors with early and correct diagnosis of observed symptoms of crop disorders, can similarly help determine effective crop protection responses. The role of both types of support tools is increasingly important given the world-wide decline and availability of taxonomic and practical agronomic expertise. The range of digital identification and diagnostic tools developed in recent years include online field guides and identification keys, image galleries and structured image databases, remote microscope diagnostics, and smartphone/tablet apps. After briefly reviewing some of these alternatives, this presentation will focus on a particular suite of software tools, initially developed at the University of Queensland and now maintained and supported by a spin-off company Identic Pty Ltd. [183] This software consists of a matrix key and fact sheet authoring software that enables taxonomists and other authors to develop identification and diagnostic keys and deploy them on USBs, CD/DVDs, online or as Lucid Mobile apps. Examples of various world-wide applications will be provided, together with recent developments in the software platform. Future potential for increasing links between these expert system apps and molecular, image recognition, artificial intelligence, and community support tools will also be discussed.