



'P-tracker' (pest tracker) Field Surveillance System

The '*P-tracker*' surveillance system is a self contained and readily deployable field surveillance kit, consolidating a suite of data collection, consolidation, diagnostic, analysis and mapping tools into a 'field ready' surveillance kit. Each kit comprises three data collection units (field equipped smart phones with Geojot equipped software) for each of the biosecurity plant disciplines (entomology, botany, plant pathology). These units are used to record digital images, GPS locations and specimen collection details during plant health surveillance and biosecurity activities.

Surveillance data is uploaded from the smart phone 'trackers' onto the standalone (non-networked) computer for consolidation, analysis and mapping by the GPS Photolink software. 'Dina-lite' digital microscope equipment and scientific reference material is also contained within the kit, providing basic field based diagnostic capabilities. The data is then transferred to a plant health surveillance database.

The '*P-tracker*' surveillance system has been designed and developed to enhance data collection, collation, analysis and reporting and to address the issue of data consistency, data integrity and data management across multiple stakeholder groups.

'P-tracker' Data Collection Tool background

The primary purpose of the *P-tracker surveillance system* is to facilitate the collection, collation and management of biosecurity surveillance data. Uniform data collection sequences, electronic tools and software provide accurate spatial and scientific information of plant surveillance activities to external stakeholders.

The *P-tracker system* utilises commercial software (*Geojot and GPS Photolink* software) as it is easy to use, inexpensive to download and upgrade, easily tailored to specific plant health activities (scientific and operational) and designed specifically for ease of use in the field. In addition, the software is linked directly to GIS packages (currently utilised by the IPHP) and existing software can be easily modified and tailored to meet the needs of scientific and operational activities.

P-tracker data is presented in digital format, therefore data does not need to be processed and prepared for analysis because it is already in the required format. This eliminates the possibility of errors occurring when transcribing data from the field notes to computer database and faster access to the data once it has been collected and downloaded to a PC (stand alone laptop). Data can be spatially referenced with a GPS to the field computer.

Summary

The tools and system developed have ensured that field surveillance data is collected in a consistency manner, and ensures the data integrity is maintained. This has provided downstream efficiencies e.g. in data basing this information and utilising it for further analysis as well as facilitating follow up on outstanding diagnostic of collected specimens or generating pest lists and reporting surveillance efforts etc.