Australian Government
Department of Agriculture, Water and the Environment

PRODUCT REFERENCE

Plant Diagnostic Kits

What are diagnostic kits?

Diagnostic kits are important tools for the identification, control and research of plant pathogens. There are many diagnostic tools available, including ELISA (enzyme-linked immunosorbent assay), lateral flow immunochromatographic assays, immunofluorescence assays, and various molecular diagnostic techniques. Many of these tests are sold commercially in 'kits' as ready-to-use applications for detecting pathogens in plant material. Most are intended for use in the laboratory, but some are designed for testing plant samples in the field.

Lateral flow strip diagnostic kits

Lateral flow strip diagnostic kits are small, simple tools that can be easily used in the field to indicate the presence or absence of a plant pathogen in a sample of plant material.

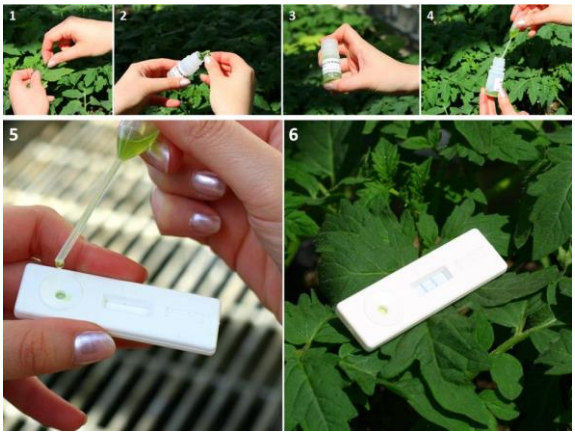

Image: Lateral flow strip diagnostic kit. Source: *Pocket Diagnostic,* (2019)

Plant diagnostic kits NOT containing positive controls, live or whole inactivated microorganisms

Commercially manufactured and packaged diagnostic kits that **do not** contain positive controls present minimal plant biosecurity risk and can contain many components such as solvents and hardware which pose no plant biosecurity concern.

Plant diagnostic kits containing positive controls, live or whole inactivated microorganisms

Commercially manufactured and packaged diagnostic kits that **do** contain positive controls present a risk of introducing plant pathogens into Australia if the control was intentionally or unintentionally exposed to a host plant or a vector. Un-purified antiserum may also still contain infectious materials. These kits are assessed in a similar way to live plant pathogen material as they are seen to pose a similar amount of biosecurity risk.