



# PestSmart

**Learn how to diagnose pests and diseases in the field with PestSmart**

**PestSmart** is based on the award-winning Plantwise programme offering practiced and proven methodologies for pest identification that CABI has been using in the field for many years.



## What is PestSmart?

Using expertise in plant health and diseases CABI has launched the first in its range of PestSmart eLearning courses: PestSmart Diagnostics. The training includes the main pathogen groups as well as insect pests and nutrient deficiencies, and enables learners to go out directly into the field and apply their learning.

Aimed at students currently studying in Plant Sciences, Pest Management, Horticulture or Agriculture, PestSmart Diagnostics help students and plant health professionals develop their knowledge through practical, independent learning.

The material that forms this package is derived from CABI's flagship programme, Plantwise, which takes a holistic International approach to pest diagnostics and management advice with national extension services. By digitising Plantwise material and providing a range of learning and practice tools in the PestSmart Diagnostics package, we aim to fast-track the field experience of plant health professionals and students by giving them CABI's wealth of field experience in a single course.

## Why use PestSmart

The course offers students and plant health professionals the hands-on skills needed for field-based diagnosis of plant pests, focusing on a methodology for diagnosis. The knowledge learnt in the course gives farmers and agronomists the skills needed to identify new and emerging threats to their crops, reducing risks to the food supply chain and improving productivity.



# PestSmart Diagnostic Course

The Diagnostic Course practically guides learners through more than 15 hours of training to identify symptoms and causes of both biotic and abiotic plant health problems, and introduces a methodology for field-based diagnosis.

Aimed at students currently studying in Plant Sciences, Pest Management, Horticulture or Agriculture, the **5 modules** and **22 lessons** which can be broken down into 30 minute lessons, cover symptoms, insects and mites, causes, nutrient deficiencies and diagnostics.

The eLearning course includes over **1,000 high quality images** for visual comparison and ease of recognition as well as introductory videos providing overviews on each module.

With over **400 knowledge check questions** throughout the course learners can assess their own progress as they go.

The course can be uploaded into your own LMS, or accessed via the web.

This screenshot shows a module titled 'Pustule - caused by fungi'. It includes a photograph of a leaf with pustules. A 'For' section lists characteristics typical of fungal pustules, and an 'Against' section lists characteristics that are not typical. A note at the bottom states that the photograph is of broad bean rust caused by *Uromyces viciae fabae*.

Based on the award-winning Plantwise programme offering PestSmart offers practiced and proven methodologies for pest identification that CABI has been using in the field for many years.

It offers over 15 hours of training with a step by step approach across five modules. Broken up into manageable 30 minute lessons PestSmart helps to build skills in the recognition of plant pests and pathogens.

This screenshot shows a module titled 'Galls'. It includes a photograph of celery roots with galls. A note specifies that galls can occur on any region of the plant and can take a variety of forms. A callout instructs the user to 'Select the arrows to view the images.'

The eLearning Course includes over 1,000 high quality images for visual comparison and ease of recognition as well as introductory videos providing overviews on each module.

This screenshot shows a module titled 'Grasshoppers'. It includes a photograph of a grasshopper and a note stating that the grasshopper is a large insect found on cereals, vegetables, and pasture. A callout instructs the user to 'Select the images below to find out more.'

More than 400 questions across each of the modules enables learners to assess their progress as they work through each section.

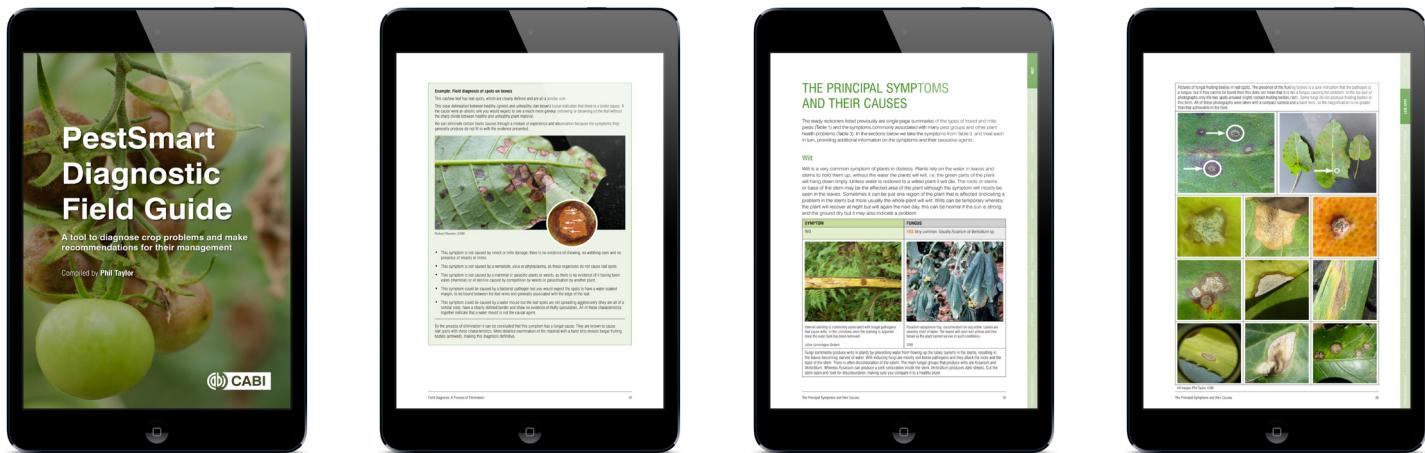
This screenshot shows a 'Collaborating: Question 7' page. It includes a photograph of a yellow flower with a brown spot and a note asking the user to choose the most appropriate option. Below are four radio button options: 'Agree that this is definitely a fungal rot', 'Agree that this is probably fungal rot', 'Whilst it is possible, it is unlikely that this could be a fungal rot', and 'The diagnosis is clearly incorrect, this is not a fungal rot'. A 'Submit' button is at the bottom right.

# Included within your PestSmart Diagnostics package...

## PestSmart Diagnostic Field Guide

The Diagnostic Field Guide is an eBook designed to support diagnostic decision making by showing the relationships between common symptoms on plants and the various possible causes.

Packed with images and tables of pests and the symptoms they cause, it takes the learning further, by beginning to dissect what is the actual cause of any particular symptom that may be found in the field.



## PestSmart Diagnostic Simulator App

The PestSmart Diagnostic Simulator is a fun and interactive tool to test student learning on plant diagnosis.

The highly realistic graphics on the app give the learner the opportunity to zoom in on symptoms, turn the plant around, cut the plant open and look inside the plant.

Users are asked to name the symptoms (and are scored on their symptom recognition) and then to make a diagnosis (also scored on the quality of their diagnosis).

This app is available for Android devices only, through the Google Play store.



## Find out more

To find out how PestSmart can benefit your Plant Sciences, Pest Management, Horticulture and Agriculture students or to request your free demo please contact [sales@cabi.org](mailto:sales@cabi.org)

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