Storage

Pocket Diagnostic® test kits should be stored at room temperature (up to 40ºC), and should not be refrigerated or frozen. Keep test kits dry. All kits are marked with a 'best before' date. Abingdon Health cannot guarantee performance of tests beyond their 'best before' date.

Disposal of used test kits

Please dispose of used test kits responsibly. Most materials can be recycled, see the table below:

Component	Material
Test device housing	High impact polystyrene
Foil wrapping	Aluminium laminate
Pipette	LDPE
Extraction bottle	LDPE
Ball bearings	Stainless steel
Outer box (if used)	Card
Outer bag (if used)	Polyethylene film
Instruction leaflet and keycard	Recycled paper

Please note: in cases where positive or suspect positive results are obtained for quarantine or notifiable pathogens, all kit components should be regarded as contaminated material, and disposed of accordingly.

Enquiries and comments

We welcome feedback on Pocket Diagnostic® test kits. If you have any enquiries or comments, please contact us on +44 (0) 1904 406 050, or via info@pocketdiagnostic.com. Further information about the Pocket Diagnostic® range can be found at www.pocketdiagnostic.com.

Terms and conditions of use

Pocket Diagnostic® tests are designed and supplied for the detection and diagnosis of the pathogen stated on the foil pack and on the back of the test device. The tests should be used to provide the basis for a presumptive diagnosis. A negative result cannot be taken as evidence of freedom from specific pathogen under test.

This product is for diagnostic use only. It is supplied on the understanding that the customer is solely responsible for determining its suitability for the intended purpose. The entire risk as to the performance of this product is assumed by the buyer. Abingdon Health shall not be liable for any loss of business, contracts, profits or revenue of any consequential special or indirect loss or damage relating to the manufacture or supply of the products, their resale or their use by any customer.

Please visit www.pocketdiagnostic.com for full Terms and Conditions of use.

Pocket Diagnostic® kits are manufactured in the UK by Forsite Diagnostics Ltd trading as Abingdon Health, Sand Hutton, York YO41 1LZ, UK.

www.pocketdiagnostic.com
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POCKET® DIAGNOSTIC

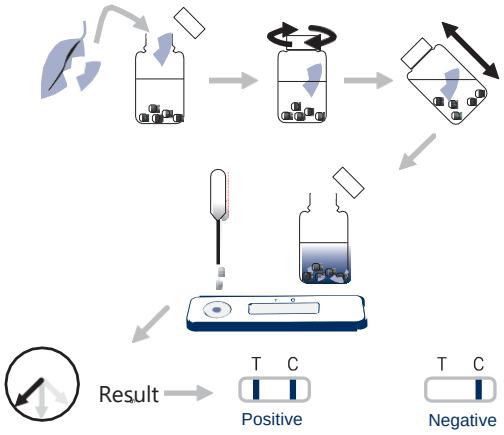
Rapid testing for plant disease

Product Codes: FG-PD51125, FG-PD51126, FG-PD51123, FG-PD51102 and FG-PD51119

Instructions for use

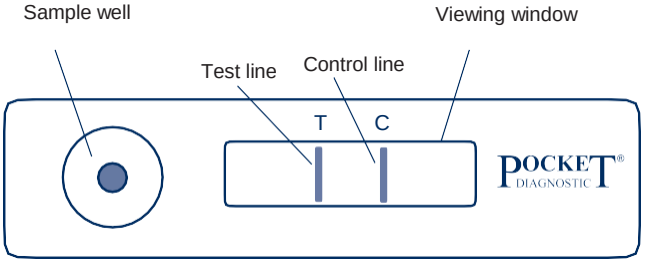
Pocket Diagnostic® tests kits are quality products, designed for the on-site detection of commercially damaging plant pathogens. **To ensure optimum performance it is important to follow the instructions carefully**. This document contains general guidance on using Pocket Diagnostic® tests. With some tests there are specific additional guidelines to follow, and these are shown on the Keycard found in the pack.

QuickStart (Turn over for full instructions)



What is in the kit

A Pocket Diagnostic® kit contains everything you need to test your plant. Test device (illustrated) – individually wrapped in a protective foil for long shelf life. The pack contains a sachet of silica gel desiccant (avoid skin contact). The type of test is shown by labels on the foil pack and on the back of the test device.



Extraction bottle and buffer – unique to Pocket Diagnostic® kits, this extraction system improves test reliability. Pocket Diagnostic® tests will work only with the buffer supplied.

Caution: The extraction buffer contains 0.05% sodium azide as a preservative – avoid ingestion and skin contact. Small parts pose a choking risk – keep out of reach of children.

Pipette – for applying drops of sample to the test device.

Keycard – with information about the pathogen, and any instructions specific to that test.

Instructions for use – including troubleshooting.

Document Reference: **IFU004**
Version Number: **2.01**

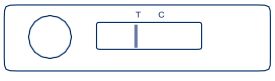
Instructions for using Pocket Diagnostic® test kits

Instructions for use	25mm square sample size	Helpful hints
Step 1: Select plant material for testing. Refer to the Keycard in the kit for any specific guidance on sampling.		Where possible, select areas of leaf, stem, root, or flowers which show the effects (symptoms) of disease. For best results include material where healthy and diseased zones meet. Do not use completely dead plant material. If testing roots, remove soil and other debris by washing. When sampling a large plant, it is advisable to take tissue from several locations on the plant. As a general guide, the sample should weigh approximately 0.2g (equivalent to a piece if typical leaf tissue 25x25mm.
Step 2: Unscrew the extraction bottle lid and add the plant material. Replace the lid tightly.		Do not use large amounts of tissue. Break up large pieces before adding to bottle. Take precautions to avoid cross contamination of samples by carryover of plant material on hands or cutting tools.
Step 3: Shake the bottle firmly for 30 seconds (60 seconds if the material is hard or woody), or until the plant material has been thoroughly broken up. Refer to Keycard in each test kit. Allow sample to settle for a least 5 minutes.		Cutting woody or fleshy material into small pieces can improve test results
Step 4: Remove the test device from its foil packing and place on a level surface with the viewing window upwards. DO NOT TOUCH THE VIEWING WINDOW. The test can be carried out with the device held horizontally in the hand.		Each test device can be used once only. Foil packs should be kept sealed until sealed until required. Once the foil pack is opened, shelf life is not guaranteed.
Step 5: Remove the lid from the extraction bottle and draw some of the liquid into the pipette. Gently squeeze 2 or 3 drops of the sample liquid into the sample well of the test device. Take care not to flood the sample well.		When drawing sample into the pipette, avoid plant debris and air bubbles. Do not add to much particulate to the test device.
Step 6: After about 30 seconds blue dye will appear in the viewing window liquid flows along the test device. A line (the Control line) will appear next to the letter 'C' on the device. This line confirms the test is working properly. If the test is positive, a second line, the Test line (next to the letter 'T'), will appear. The lines will appear within 10 minutes after adding sample to the test device. Note that some types of Pocket Diagnostic tests take longer to run that others - refer to the Keycard.		If no blue dye becomes visible in the viewing window after 30 seconds, a third drop of sample can be added to the sample well. Read the results **Caution: using too much sample or adding too much particulate will cause the test to work incorrectly. Examples of incorrectly used devices can be found at www.pocketdiagnostic.com/how-to-use.**

Reading the result

In most cases, the result becomes visible in the viewing window of the test device in a few minutes. All Pocket Diagnostic® tests produce valid results in less than 10 minutes. Ignore any changes to the test device which take place after 10 minutes.

'C' line only: negative result, test valid



'T' line only: test is invalid

'C' and 'T' lines: positive result, test valid

No lines: test is invalid

If the test is performing well, a clear 'C' line will appear. The intensity of the 'T' line will vary with the amount of the pathogen present.

What does the result mean?

A positive result indicates that the plant material sampled contains the pathogen under test. Note that disease symptoms can be caused by a mixed infection, and that further testing for other causes of disease might be necessary.

Under some circumstances, laboratory confirmation of an on-site test result is recommended e.g. where a seed classification scheme is in operation, or for results of economic significance. If tests show positive for a notifiable or quarantine pathogen, the customer is responsible for complying with the local regulations on reporting to the official plant health inspection authorities.

A negative result indicates that the target pathogen was not detected in the sample. As with all diagnostic testing, a negative result does not confirm that the plant is free from the pathogen under test. A faint or absent line may indicate a low concentration of the pathogen, uneven distribution, or recent infection. If in doubt, repeat with a new test device using fresh sample, or repeat in a few days.

Troubleshooting

Problem	Cause/remedy
No green or brown colour in the extraction buffer after shaking bottle	Insufficient extraction due to plant sample too large, too small, or dead. Try fresh sample, or shake more vigorously, or cut sample into smaller pieces.
No blue or red dye flow along test device	Possible air bubble in sample well. Tap or squeeze device gently. Not enough sample added. Carefully add further drops of sample (one at a time) until flow is seen.
Test runs very slowly	Too much plant debris in the sample added to test device. Try a new device using clearer liquid from the extraction bottle. Low temperature (below 10 °C). Warm test device and buffer slightly before use.

Problem	Cause/remedy
Green lines (not blue) visible	Green lines are produced from concentrated plant sap, and cannot be read as a valid result. Repeat with a new, smaller sample.
Faint lines	Low pathogen concentration; uneven distribution; too small a sample; or sample not shaken long enough.
'T' line visible, but no 'C' line	Possibly due to high level of pathogen in the sample, preventing test from working properly. Dilute sample 1 in 10 and 1 in 100 with fresh buffer and retest with new device.
No 'T' line, no 'C' line	Test flooded by adding too much sample. Retest with new device. If the problem continues, contact Abingdon Health, quoting the batch number.
Damaged test kit components	Please contact us via +44 (0) 1904 406 050, or info@pocketdiagnostic.com