

TECHNICAL SHEET

PATHOGEN DETECTION

In-field Phyto-DIAG KITS

Farmers, arborists and managers of green spaces often face multiple plant diseases that affect yields and quality; In the different strategies to fight against these pathogens (avoidance, exclusion, protection, resistance, therapy ...), it is necessary to test for the presence or the absence of diseases.

This can be achieved by laboratory testing (at the Bordeaux unit of Auréa AgroSciences for example) or by rapid in-field tests, with the following advantages:

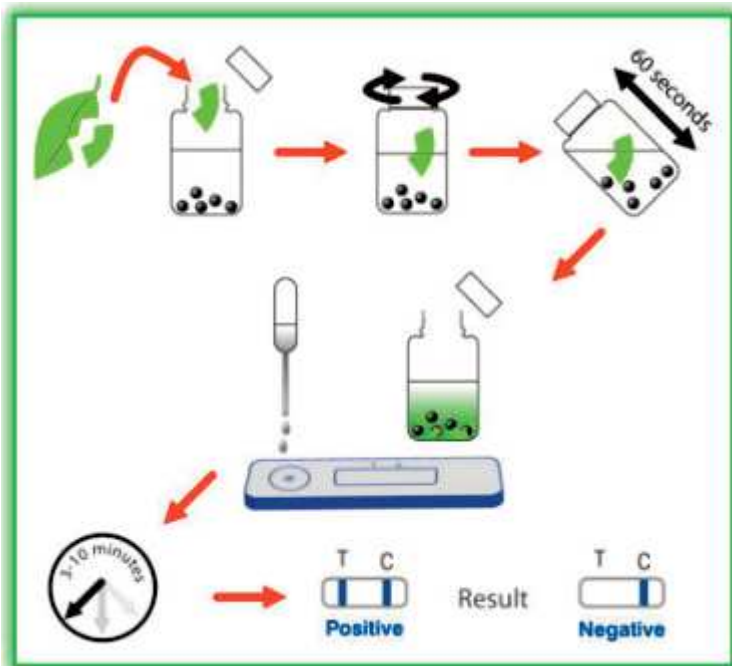
- **fast** on different plant organs and at different stages of the growth cycle
- **easy-to-use** without expensive equipment and without special training
- **portable and usable in the field** during crop inspection
- **real-time evidence** for all stakeholders of the presence or absence of the pathogen



Phyto-DIAG KITS provide an answer almost immediately, at a much lower cost than tests conducted by specialized laboratories.

- in-field use, portable everywhere
- simple user process
- answer in less than 10 minutes
- cost-effective
- time-saving for more effective interventions

Test's general procedure:





Available Phyto DIAGS KITS:

Kit Phyto DIAG Phytophthora spp. – blight

Phytophthora spp. is a serious fungus-like (oomycete) pathogen of which there are many species, affecting numerous plant hosts, such as:

- potato and tomato (late blight)
- apple tree (crown canker), chestnut, oak (ink disease)
- vine (mildew)
- strawberry, bean
- ...

Kit Phyto DIAG Potato Virus Y (PVY) - Tuber necrosis

Potato Virus Y is a pathogenic virus of the Potyvirus family, described for the first time on potato, and transmitted by many species of aphids causing on the potato:

- leaf mottling
- dwarfism and necrosis
- necrotic spots on and in tubers - with significant economic losses

And the virus also affects other species such as:

- tomato
- tobacco
- chilli pepper
- ...

Erwinia amylovora Phyto DIAG Kit (fire blight)

Erwinia amylovora, also known as fire blight, is a bacterium from the family Enterobacteriaceae that infects rosaceous plants. It is one of the most serious diseases of pear, apple, quince and loquat trees. The economic losses caused by this bacterium are considerable.

Infections usually enter their host by flowers and wounds. They spread through the tree from the point of infection via the twig, then the branches to eventually reach the trunk and roots, which causes the death of the plant.

Ralstonia solanacearum Phyto DIAG Kit

Ralstonia solanacearum is a plant pathogen, in the form of a soil bacterium. Present in many soils of all continents, it colonizes xylem, causing bacterial wilt or blight in a wide range of host plants. It affects more than 250 plant species, and especially:

- brown rot of potato
- bacterial wilt of tomato
- bacterial wilt of other Solanaceae, aubergines, sweet peppers, tobacco
- cucurbits
- ornamental plants: geranium, anthurium
- ...

This pathogenic telluric bacterium of plants survives for several years in many soils up to 30 cm deep, especially from plant debris if these soils have a high capacity for water retention.

INFORMATION :

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