



Customized plant research



## Biocontrol evaluation

### *Performance and mode of action*

Our plant pathology team has developed pathogenic tests to evaluate the performance of your plant protection products including elicitors and beneficial microorganisms under controlled and semi-controlled conditions.

#### **We evaluate your products for:**

- ◆ Their efficiency in plant protection
- ◆ Their resistance to Leaching
- ◆ Their phytotoxicity
- ◆ Their persistence of action and systemic action in plants (protection of untreated organ)
- ◆ Their compatibility with conventional pesticides
- ◆ Their herbicidal effect



*Growth chamber*



*Grey mold symptoms on tomato*



*Assay on mycelium growth*

#### **We help you understand their mode of action:**

- ◆ Their direct biocidal or antagonist effect on the pathogen at different stages (spore germination, mycelium growth, bacterial multiplication...)
- ◆ Their ability to stimulate plant defence pathways: gene expression profiles using qPFD® tool, transcriptomic approach, metabolite (lignin...) detection and quantification...

#### **We have powerful and adapted tools at laboratory scale:**

- ◆ 650 m<sup>2</sup> of compartmented and regulated greenhouses
- ◆ 9 regulated growth chambers
- ◆ Molecular lab

We can also do **bibliographic searches** to see what has been published in scientific literature which can help you to better understand the mode of action your products.

We have a skilled and specialized plant pathology team. We work on a large panel of pathogens (bacteria, fungi) (list at the back), on different crops.

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## Disease assays

*For plant protection product evaluation*

You wish to evaluate your products (both conventional and alternative) for their efficiency on plant diseases?

The plant pathology team at Vegenov has developed pathogenic tests to respond to your needs:

Plant	Disease	Pathogen
<b>Cereals and other field crops</b>	Wheat	Septoria Fusarium blight
	Oilseed rape	Sclerotinia
	Horse bean	Rust
	Flax	Verticillium wilt
	Lupin	Anthraxnose Grey mold
	Potato	Late blight
<b>Fruits and vegetables</b>	Artichoke	Downy mildew
	Cabbage and cauliflower	Ringspot disease Downy mildew Black rot Club root
	Semy-dry bean (Coco de Paimpol)	Bacterial brown spot disease
	Cucumber	Powdery mildew
	Strawberry	Powdery mildew
	Lettuce	Downy mildew White mold
	Melon	Downy mildew Powdery mildew
	Pea	Downy mildew
	Tomato	Hairy root Leaf mold Downy mildew Powdery mildew Grey rot
<b>Ornamental plants and herbs</b>	Basil	Downy mildew
	Rose	Powdery mildew

Additional pathogenic test are under development and can be developed under request.

