

## Development of formulated elicitors to control bioagressors of wheat

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Stimulating the expression of the **systemic defense mechanisms** in wheat using **elicitor** against *Septoria tritici*, *Fusarium graminearum* and *Fusarium culmorum*

### ELICTORS ?

- ✓ All signals perceived by plant cells and induce a defensive reaction (HR, LAR, SAR or ISR)
- ✓ Examples: Chitosan, Laminarin, Lipopolysaccharides, Flagellin, Pyocyanin

### PROJECT

Screening of  
10 elicitors  
from different  
origins and  
structures

Reproduction of symptoms of  
*Septoria tritici*  
*Fusarium graminearum*  
*Fusarium culmorum*  
on greenhouse wheat  
+  
**Phytotoxicity tests**  
(measure of disease incidence)

Tests on the 2  
most efficient  
elicitors

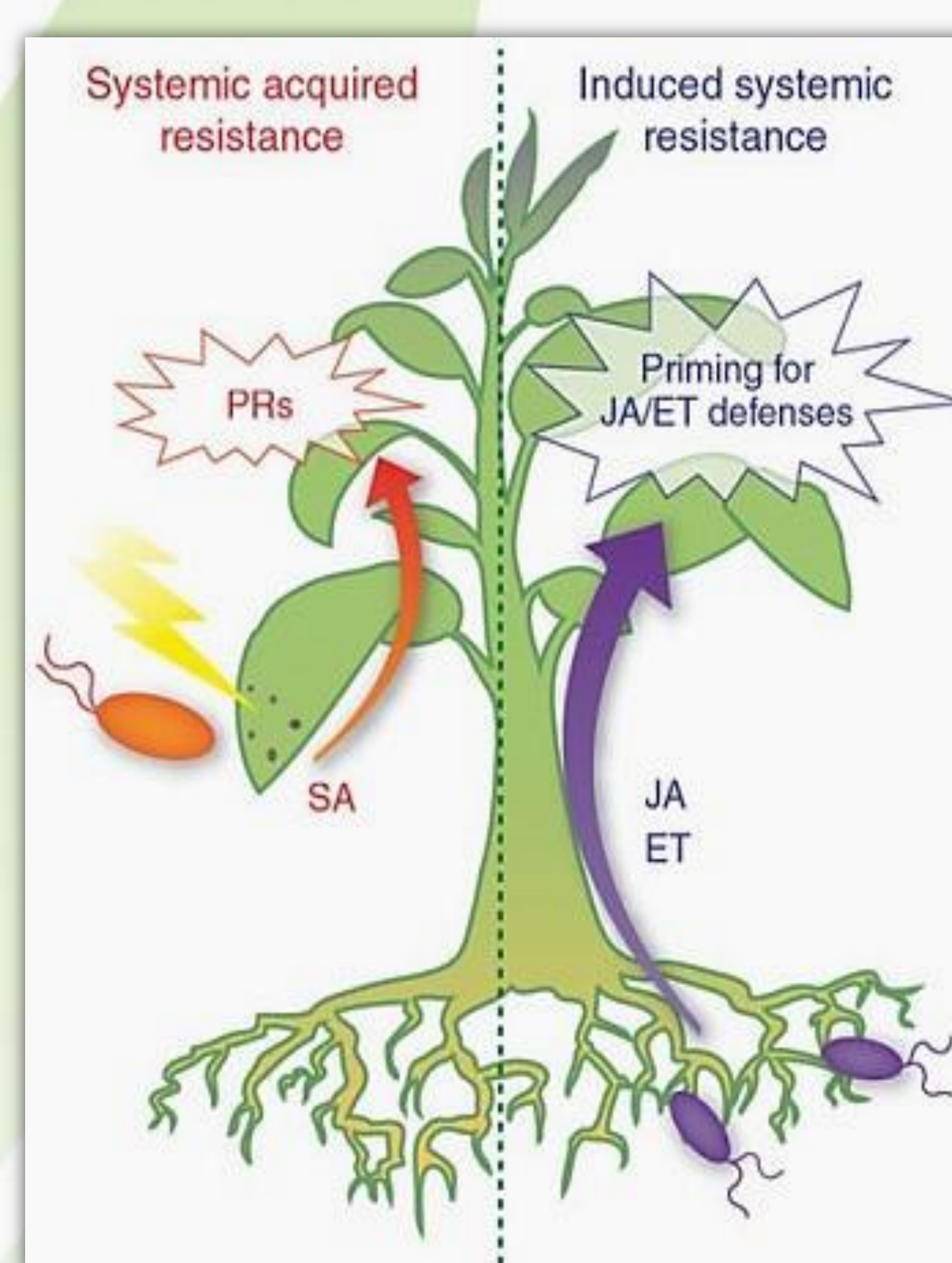
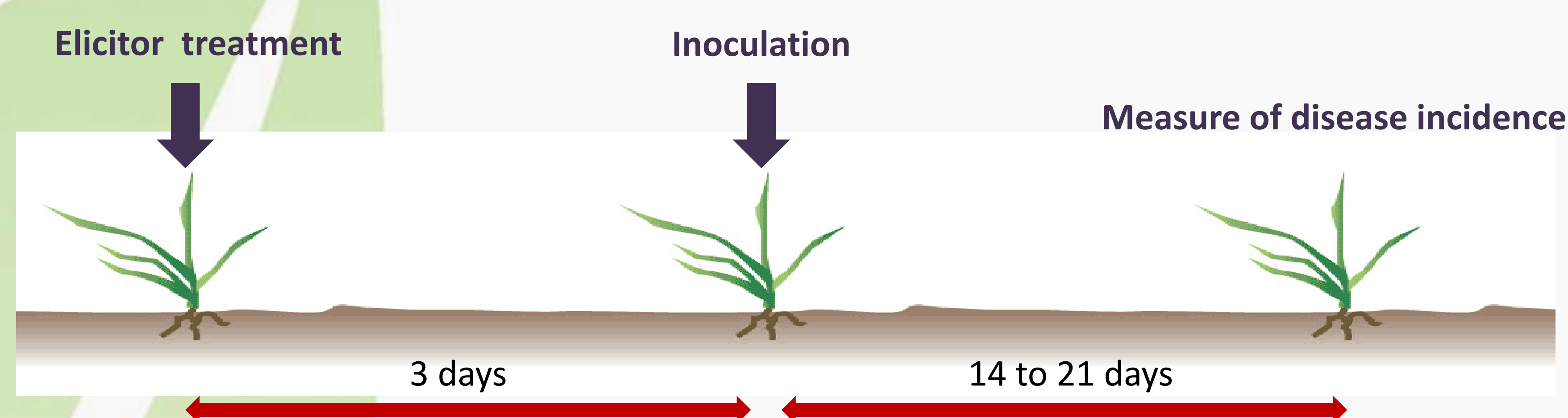
Determination of the **metabolic pathways**  
+  
Impact on plant physiology  
+  
Influence of **environmental factors**

Development  
of rational  
formulations

**Tests in the field**  
under different systems of  
productions  
(conventional, fabaceae intercrop,  
flower strips)

### ADVANTAGES?

- ✓ **Biocontrol tool**
- ✓ Contributes to **fungicide reduction**
- ✓ Prolonged **systemic effect** in the plant
- ✓ Induction of **non-specific resistance**
- ✓ Efficient for a **wide range of plants** against a **broad spectrum of pathogens**



### WHY?

Few elicitors  
commercialized for  
arable crops  
+  
Variable efficacy in the  
field

## ELICTORS, A PROMISING BIOCONTROL TOOL !