

## DeciControl: a participative tool to gather & share data regarding biocontrol efficacy

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# DeciControl: a participative tool to gather & share data regarding biocontrol efficacy

# Context

Biocontrol: a key to reducing the use of chemical pesticides but...

• Biocontrol is more complex to use than chemical pesticides

• Efficacy modulated by multiple biotic and abiotic factors

• Unpredictable efficacy of protection in the field

(e.g. temperature, humidity, microbiote,...)

Research questions

 Could a Decision Support System help minimize the unpredictability of biocontrol efficacy and therefore improve biocontrol deployment ?

• What data would be needed to build such a tool?

• Can scientific knowledge be a sufficient source of information?

# Identification of obstacles to wide adoption of biocontrol for disease management

Survey of farmers & farm advisors

- More efficacy benchmarks of biocontrol products from trusted peers
- Better advice on the best biocontrol solution available in their situation
- A simple and clear guideline to use biocontrol solutions in the best way

## Review of scientific & technical literature

- Abundant published research about mechanisms of action in the lab
- Limited data about efficacy in field conditions
- Scant studies focused on efficacy factors of biocontrol

# Principle of the DeciControl app and content-improvement loop



# Content shared with users

- A "product page" for each biocontrol product
- General information on biocontrol products (active substances, known modes of action, officially approved uses)
- Factors influencing the protective efficacy
- Synthesis of feedback from biocontrol users under commercial conditions

# Scientific and technical literature

- Publicly available and unpublished data on biocontrol efficacy
- Regulatory information about registered biocontrol products

## Feedback from users

- Possibility to provide feedback on biocontrol efficacy in the field + context data (cropping practices & conditions of biocontrol application)
- Input of data through easy-to-use forms integrated in the app

SUD



- 3: Santé et Agroécologie du Vignoble INRAE
- 4: Association Provençale de Recherche et d'Expérimentation Légumière

'Towards Pesticide Free Agriculture'

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