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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...

- Unpredictable efficacy of protection in the field
- Efficacy modulated by multiple biotic and abiotic factors (e.g. temperature, humidity, microbiote,...)
- Biocontrol is more complex to use than chemical pesticides

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

