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Uncovering Genetic Information from DNA-sequences as a Breeder's Tool to Increase Resistance to *Botrytis Cinerea* of New Rose Varieties

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Background

- *Botrytis cinerea* is a fungus causing grey mould disease in many crops, including roses.
- Botrytis species are increasingly becoming resistant to fungicides, prompting the exploration of genetic resources to identify alternative sources of protection.
- To date, no effective genetic resistance against Botrytis has been identified yet

Objectives

1. Discover genes involved in resistance to Botrytis
2. Develop genetic markers to accelerate selection
3. Achieve more durable resistance against Botrytis

Workflow



*"Screening of **192** rose genotypes for various levels of resistance to Botrytis"*



"Find the link between disease scores and genetic information of roses"



"Confirm genetic markers and implement knowledge to select for novel rose genotypes with increased resistance to Botrytis"



Disease Screening

Genetic association

Validation

Application

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