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▶ To cite this version:

Luciana Wilhelm de Almeida, Laurent Torregrosa, Gabriel Dournes, Anne Pellegrino, Hernán Ojeda, et al.. Accumulation of grape metabolites is differently impacted by water deficit at the berry and plant levels in new fungus disease-tolerant genotypes. Oeno Macrowine 2023, Jul 2023, Bordeaux, France. hal-04588502

HAL Id: hal-04588502

https://institut-agro-montpellier.hal.science/hal-04588502v1

Submitted on 27 May 2024

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Accumulation of grape metabolites is differently impacted by water deficit at the berry and plant levels in new fungus disease-tolerant genotypes

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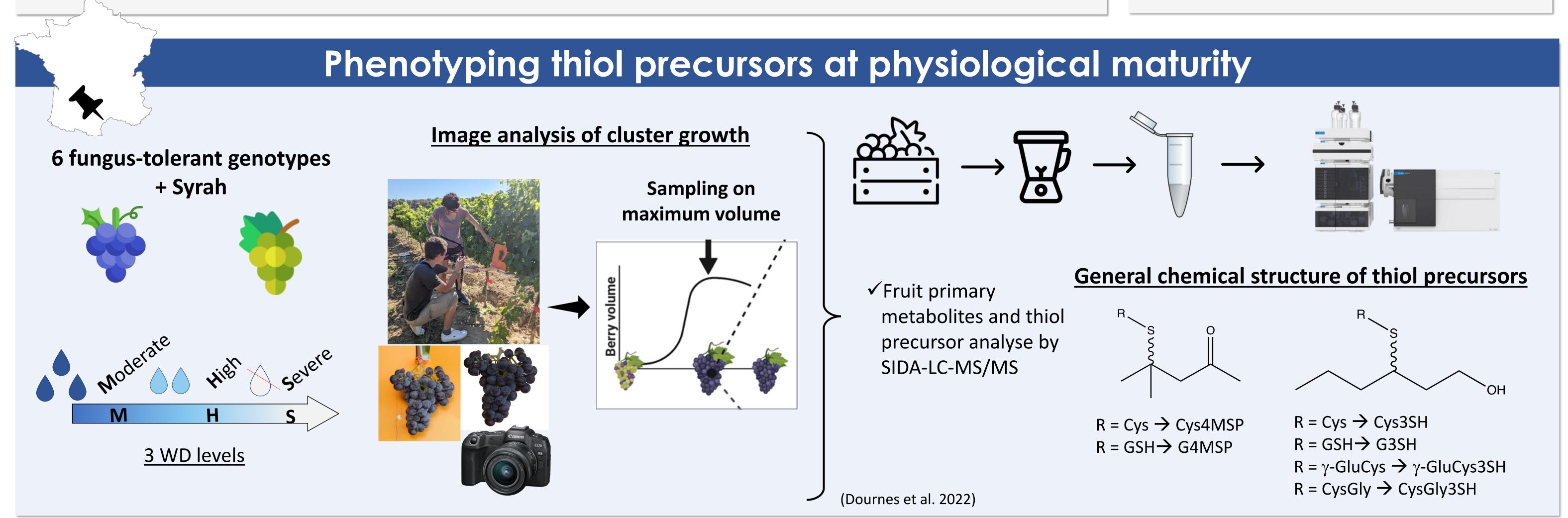
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Context

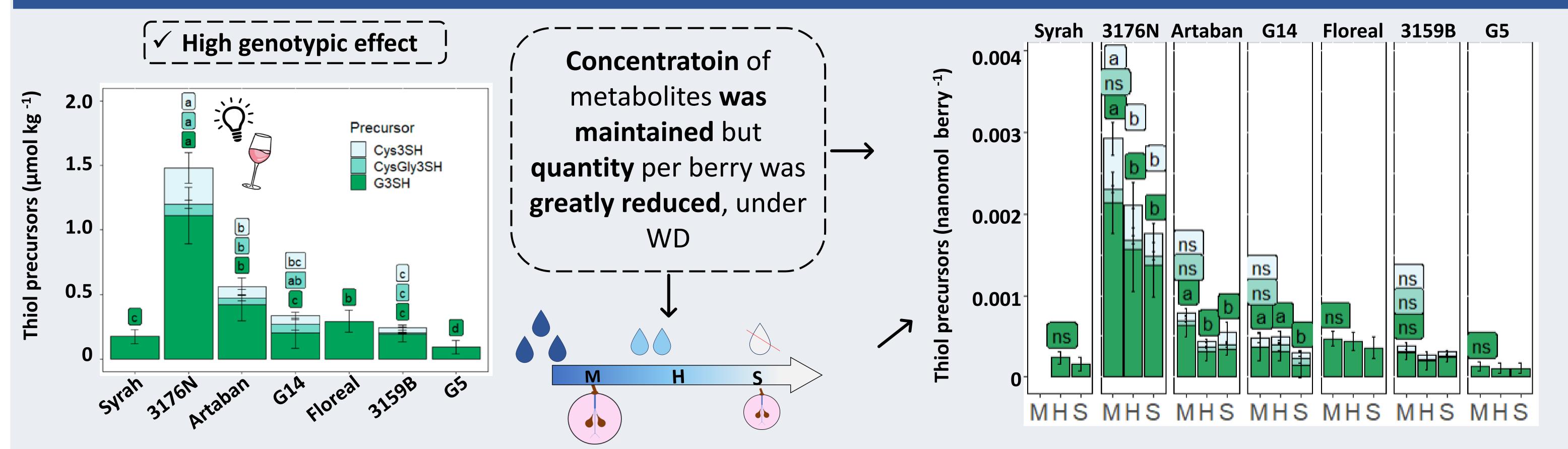
- New fungus-tolerant grapevine varieties appears as promising solution to reduce chemical input.
- They also constitute an option to adapt plant material to future climatic conditions, as water deficit (WD)
- WD is known to impact on the regulation of primary and secondary metabolites accumulation
- Thiols (3SH and 4MSP), are powerful aromatic compounds involved in the specificity of varietal wines.
- Yet, little is known about the effects of WD on the thiol aromatic potential of new varieties.

Objectives

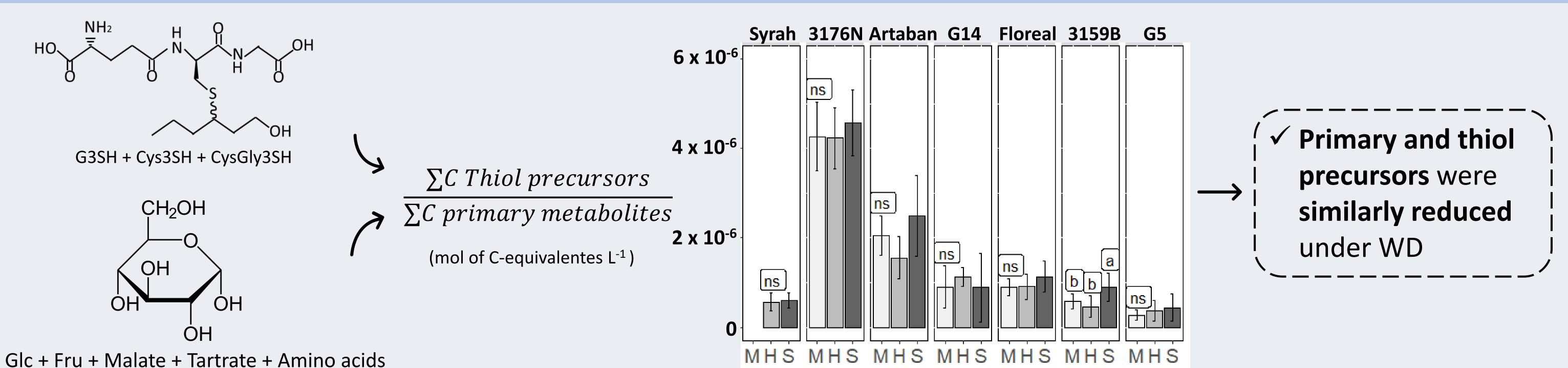
- Study the impact of **drought** on **thiol precursors accumulation** in fungus-tolerant genotypes' **grapes**
- Evaluate the metabolic trade-offs between thiol precursors and primary metabolites



RESULTS: « THE SIZE OF THE BERRY MATTERS »



"Does WD modify the quantity of Callocated to primary and secondary metabolites?"



Drougth reduces the production of metabolites per fruit & plant without increasing thiol compounds in the grape

Next steps: Perform under controlled environment to target specific WD levels and study the thiol precursor levels at the single berry level