

Advising sugar beet growers on irrigation in diversified contexts

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A web tool to advise farmers

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Your context

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Economic data

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Studied scenario

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Reference scenario

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Analyze

Irrigation water volumes

Yield gap

Margin differences

 Studied scenario: average water volume

 Reference scenario: average water volume

A web tool to advise farmers

Your context

Departement

Nord

Weather station

Valenciennes

Soil water reservoir (mm)

200 mm

Use of irrigation equipment for sugar beet

Equipment not used specifically for sugar beet irrigation

Studied question

Benefits of late-season irrigation

Economic data

Studied scenario

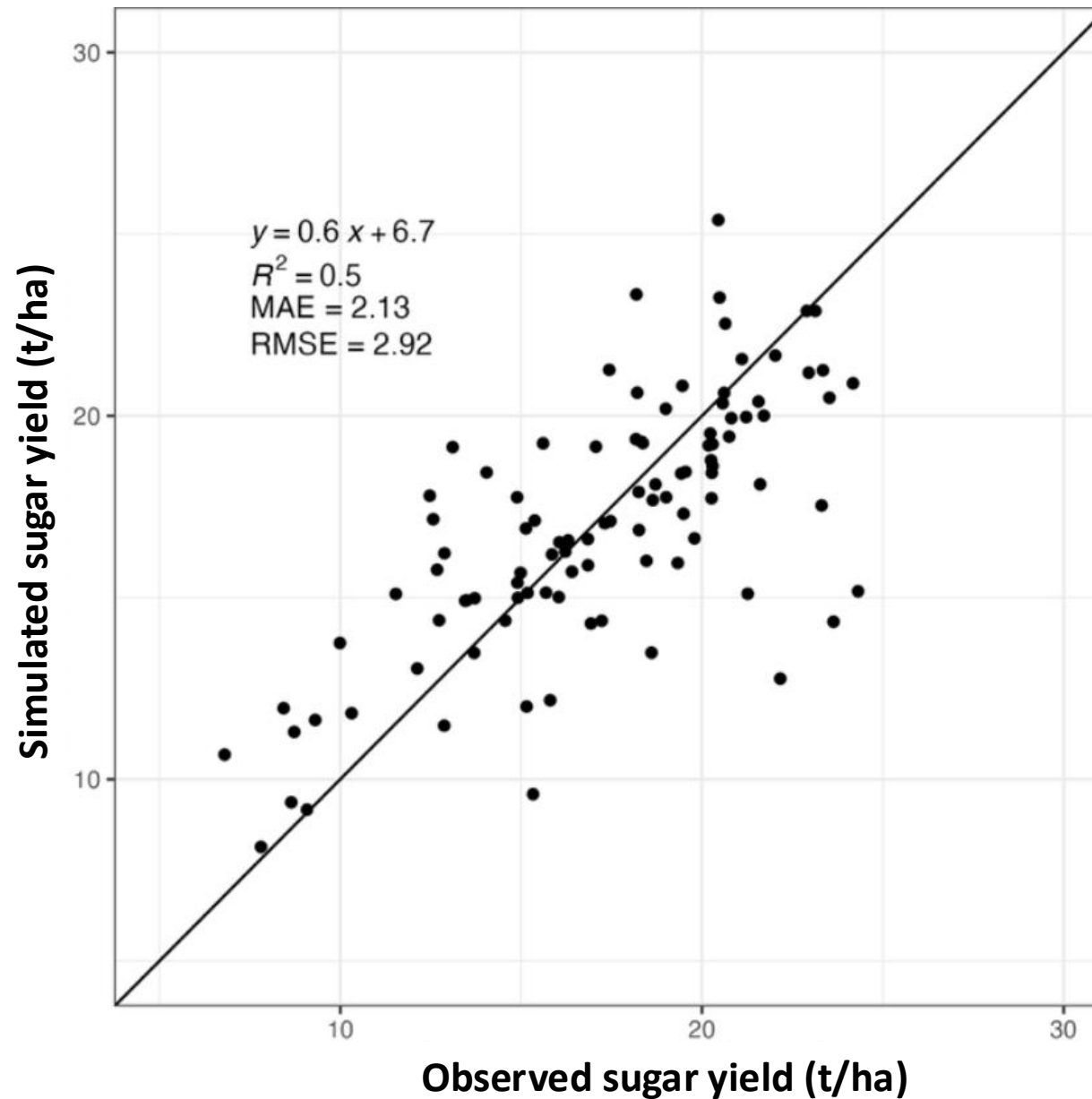
Reference scenario

Irrigation water volumesYield gapMargin differences

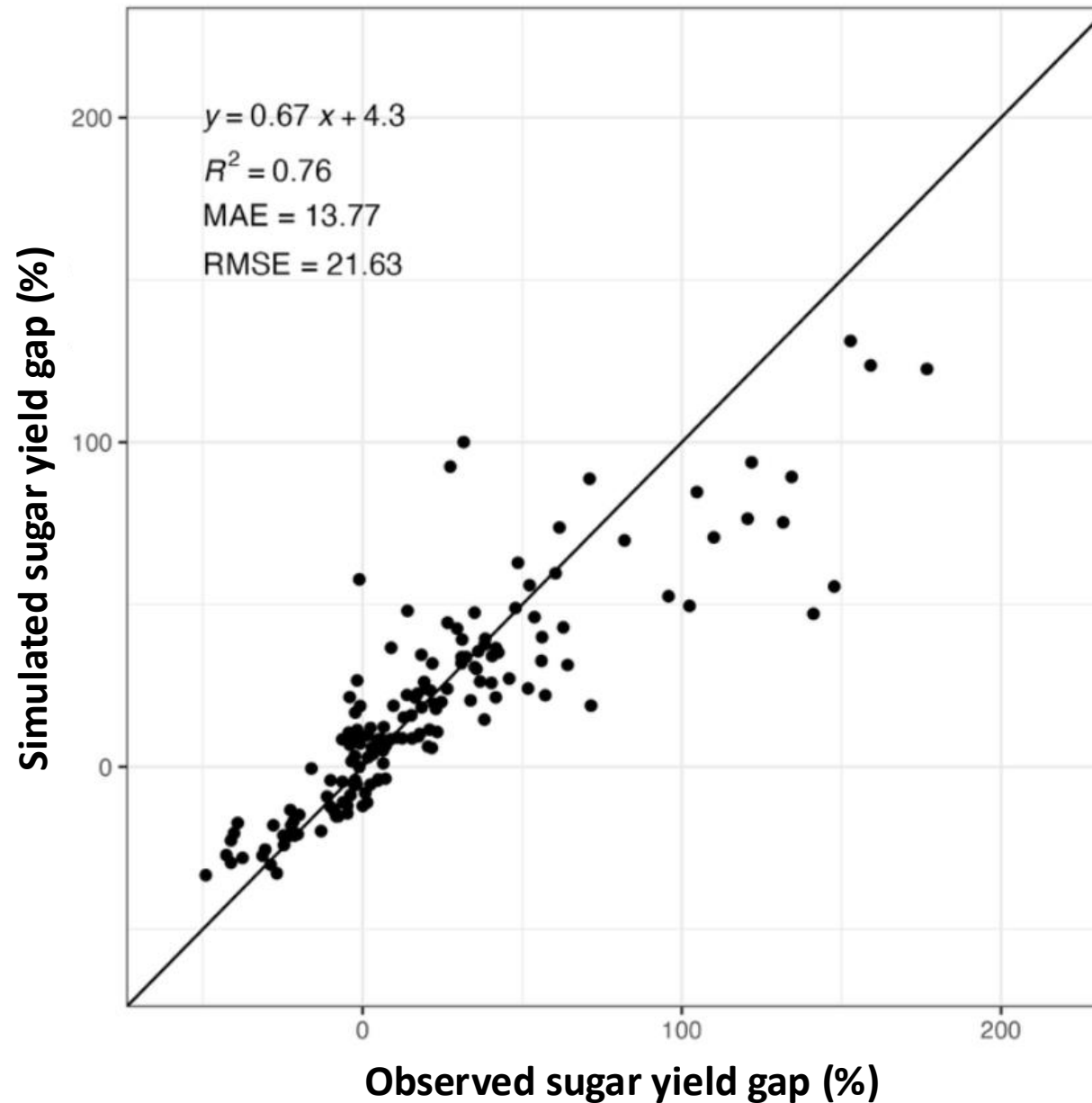
Studied scenario: average water volume

Reference scenario: average water volume

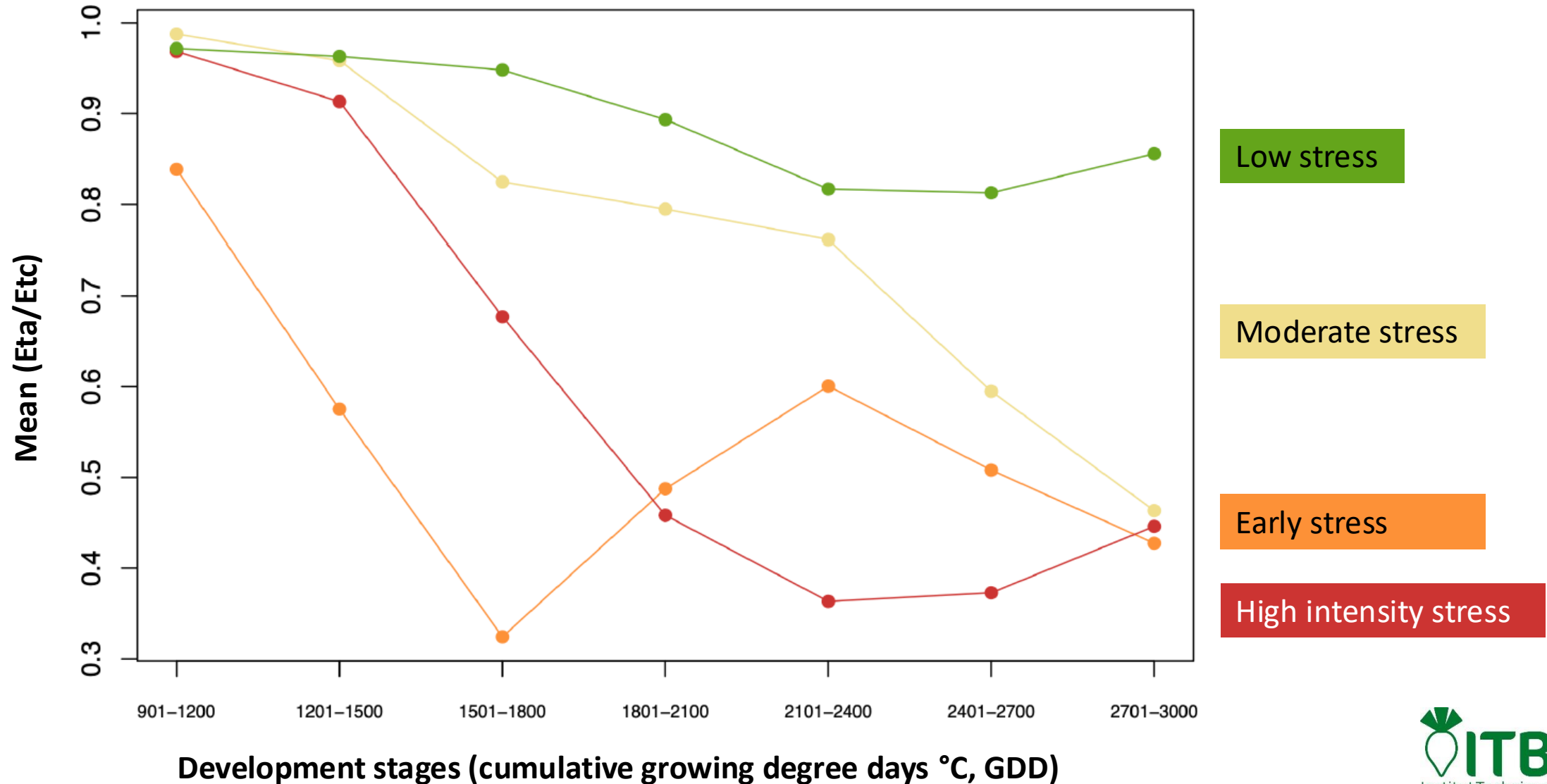
A web tool based on Optirrig



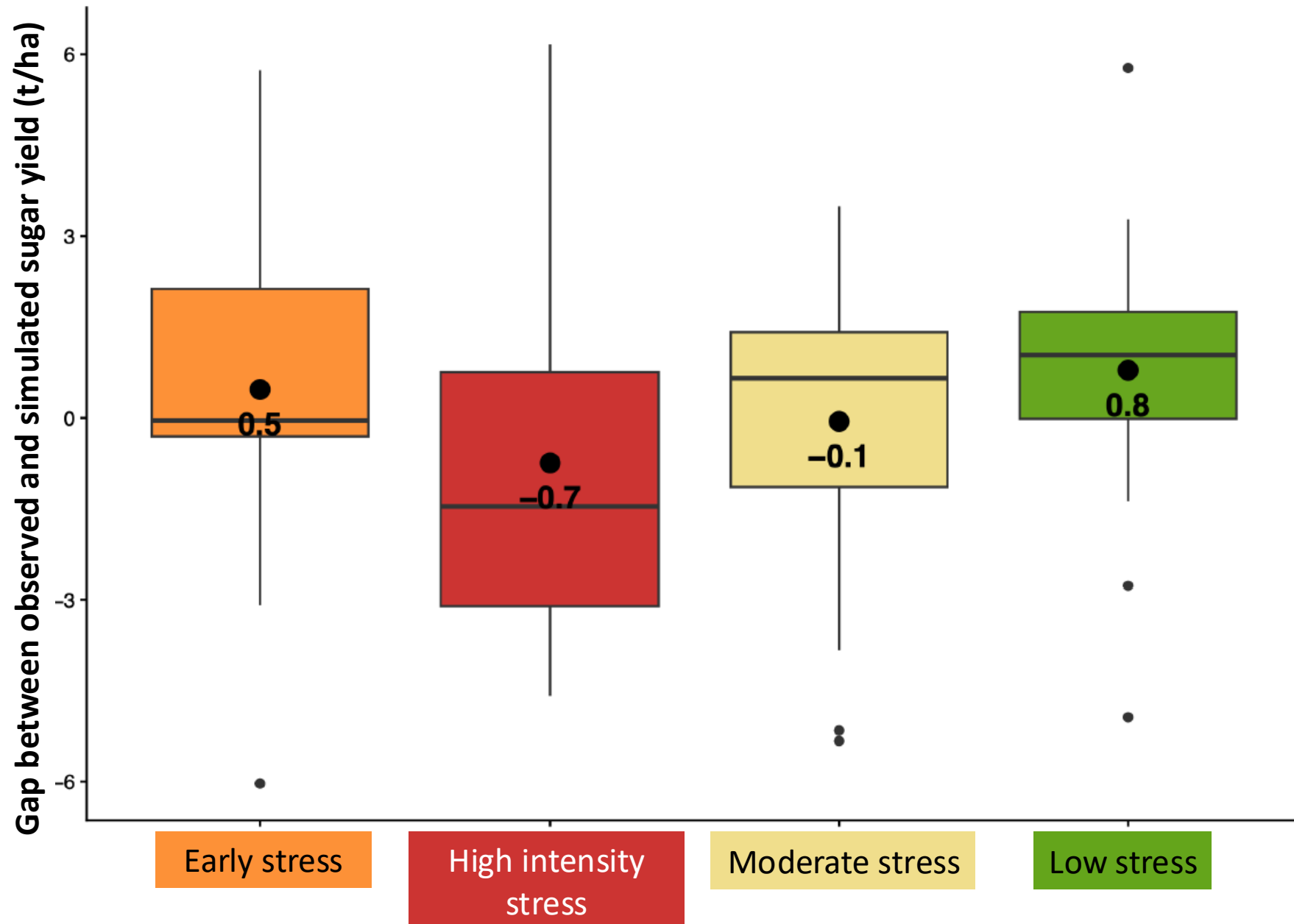
A web tool based on Optirrig



A web tool based on Optirrig



A web tool based on Optirrig



- Improve performances of Optirrig model
- Improve user guidance for operating the web tool and interpreting its outputs
- Offer a wider choice of questions and scenarios?

Thank you for your attention

Main references :

- *Adrian J., Ben Aicha C., Gauffreteau A., Maupas F., Description of the water stress dynamics in sugar beet crops, Poster, 79th IIRB Congress, Brussels, 27-28 February 2024*
- *Cheviron, Bruno, R. Willem Vervoort, Rami Albasha, Romain Dairon, Camille Le Priol, et Jean-Claude Mailhol. 2016. « A Framework to Use Crop Models for Multi-Objective Constrained Optimization of Irrigation Strategies ». Environmental Modelling & Software 86 (décembre): 145-57.
<https://doi.org/10.1016/j.envsoft.2016.09.001>.*
- *Ricquier F., Orlando K., Cheviron B., Team Optimiste U (2026). OptirrigCORE: Optirrig Core: Simulate and Optimize Irrigation Scenarios. R package version 0.8.0, <https://forge.inrae.fr/OptirrigHIVE/OptirrigCORE>.*



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