

Pedoclimatic and crop management limitations for paddy rice grown north of the Swiss Alps.

Lucas Freund^{1,2}, Thomas Guillaume², Emmanuel Frossard¹
¹USYS, ETH Zurich; ²Agroscope Changins;

1 Background of the project

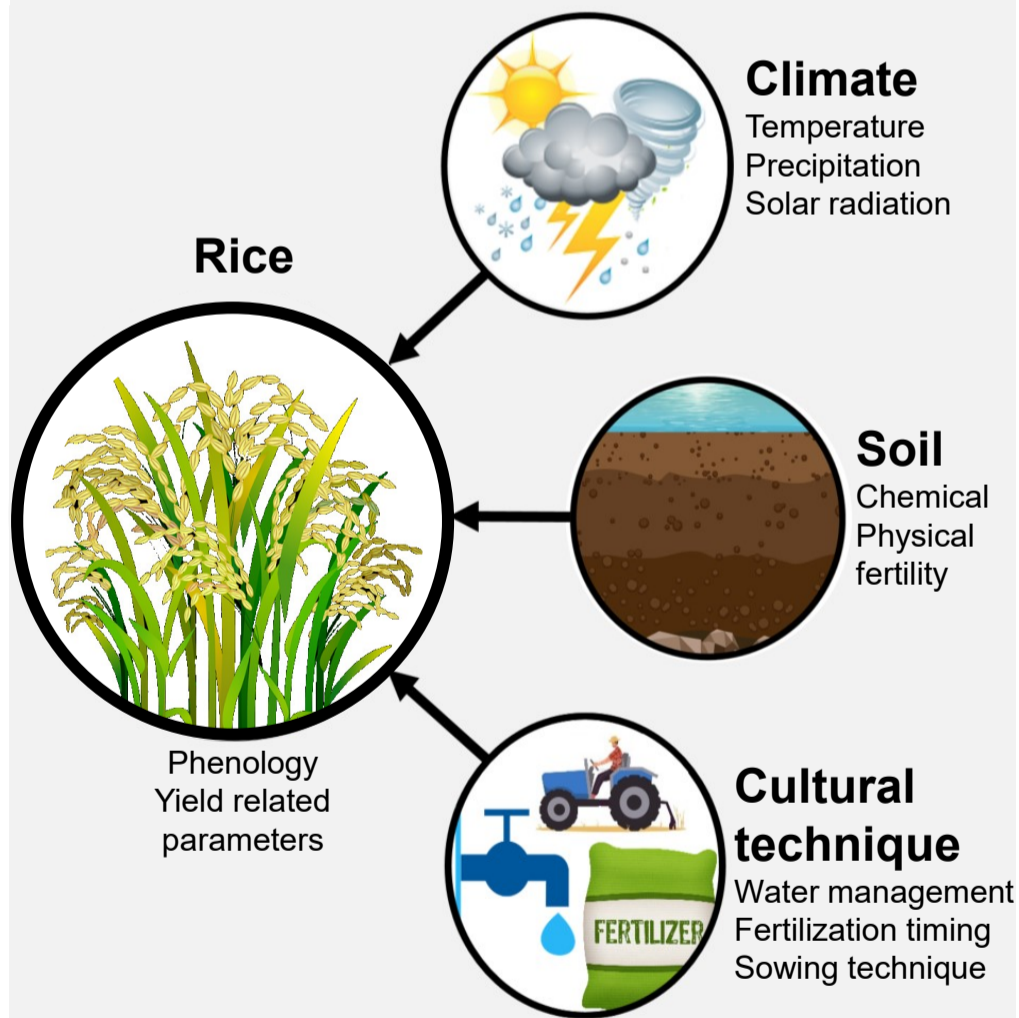
Promote sustainable agriculture on wet arable lands, while providing habitats for endangered species.

2 Objectives & Method

Objectives

- Determine the feasibility of rice cropping in CH.
- Identify pedo-climatic and crop management techniques limitations.
- Improve plant nutrition and rice yields.

Mesured environmental parameters potentially limiting rice production



3 Results

Biomass productions are significantly different between the sites. We need now to identify which environmental factors are driving those differences.

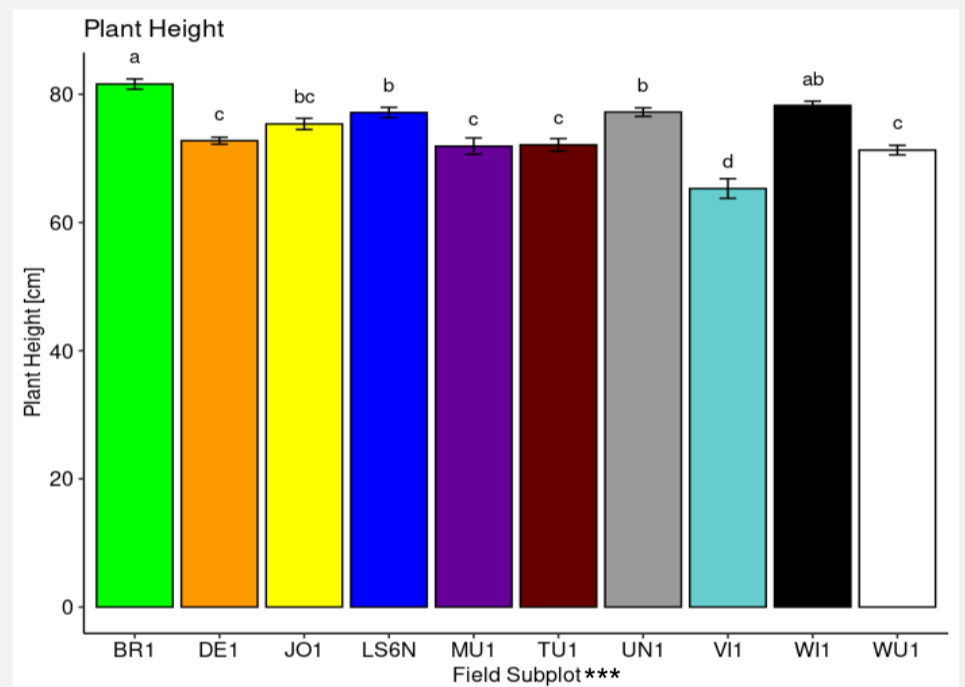


Figure 1 – Plant height in cm at the end of the growing season. Data are mean values ± SE; n = 5. Significant effects of the site on the parameter is indicated with *** for P < 0.001 (one-way ANOVA). Different letters indicate significant differences between sites with a > b > c > d.

4 Conclusion

Identifying the origins of rice growth limitation will enable us to provide advice to farmers on how to optimize their crop management techniques. Next steps aim to improve organic rice N nutrition and provide tools to optimize fertilization timing.

4 Contribution to Sustainable Food Systems

- 2 ZERO HUNGER** Promote sustainable agriculture.
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION** Reduce production chain, produce locally.
- 15 LIFE ON LAND** Reduce soil organic matter degradation. Provide habitat for endangered species.

