

# Du stress hydrique dans les vignobles belges ?

*Cas d'étude du Vignoble du Château de Bousval et du Domaine W lors de la sécheresse exceptionnelle de l'été 2022*

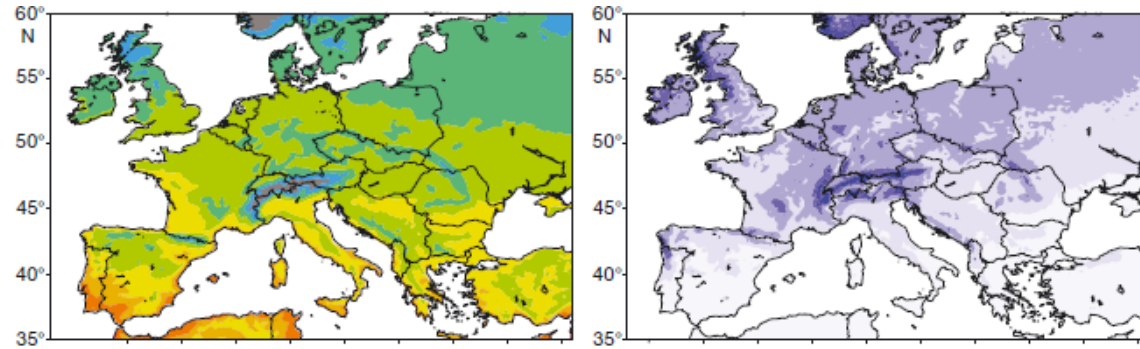
**Louis Delval**

[louis.delval@uclouvain.be](mailto:louis.delval@uclouvain.be)

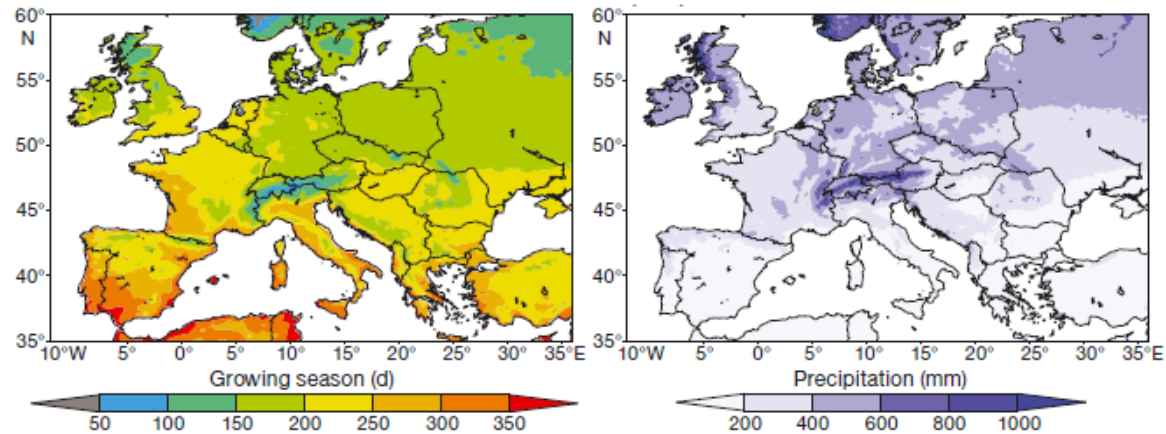
Les changements climatiques et les vignobles belges – vers quoi allons-nous ?

16 juin 2023

Actuellement

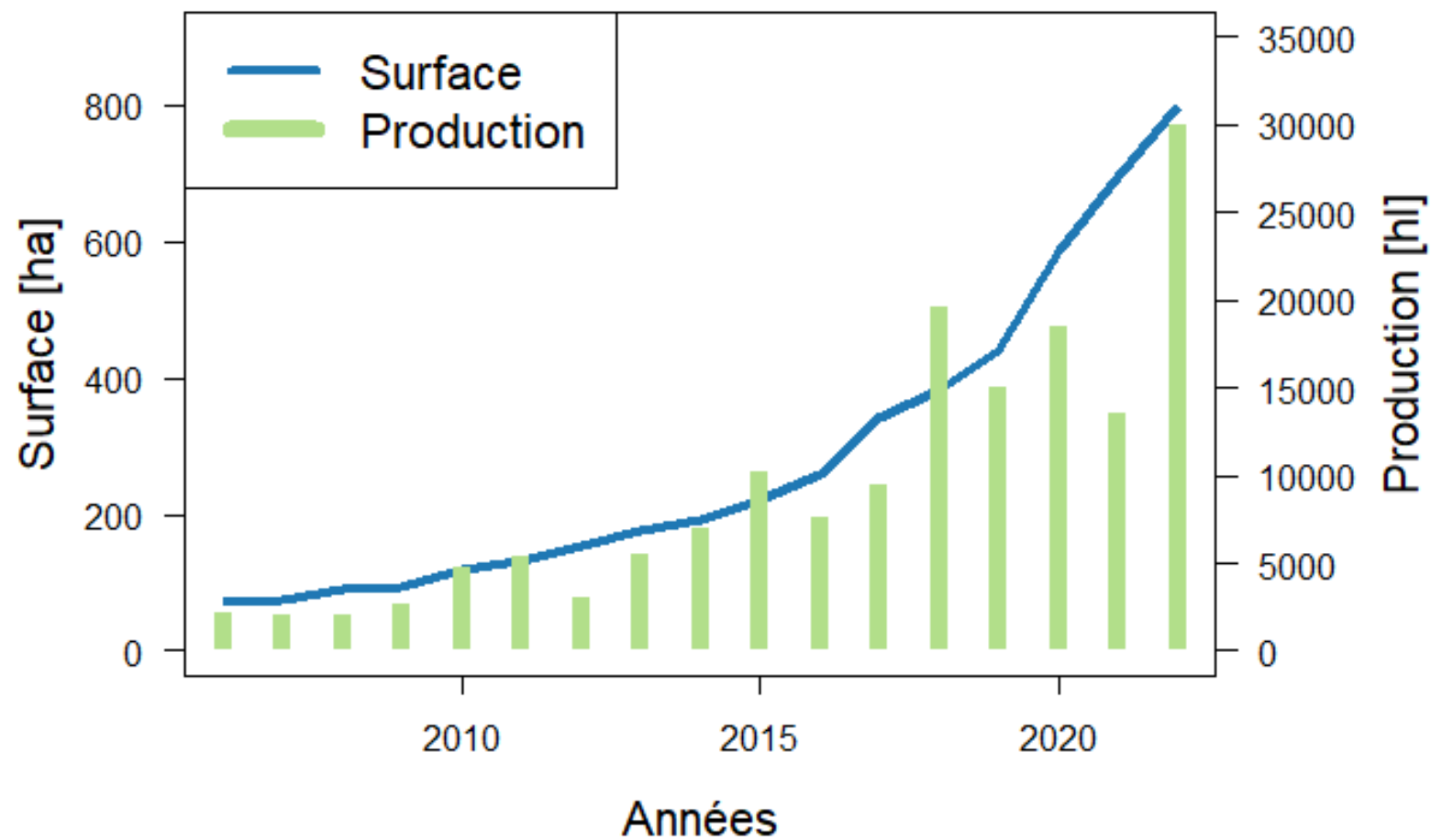


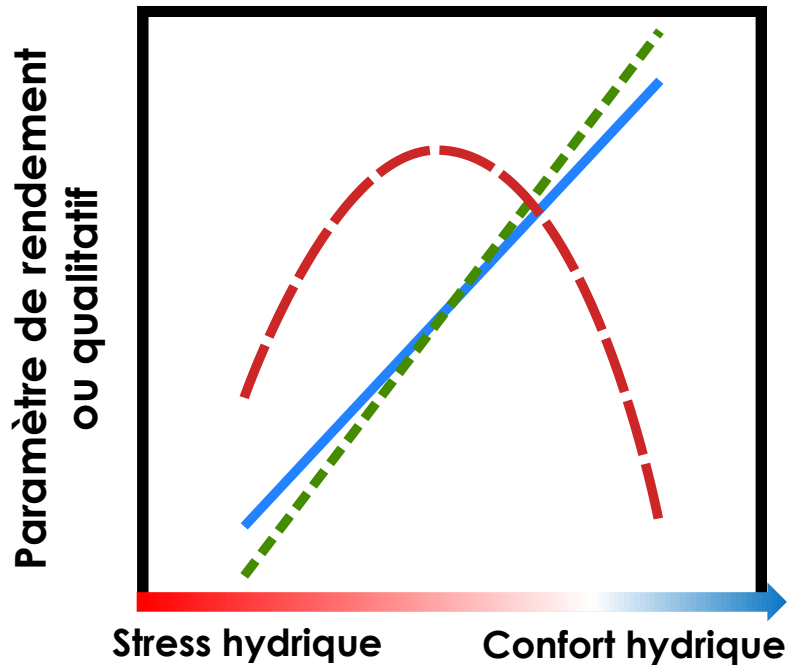
2071 – 2100 (scénario A1B SRES)



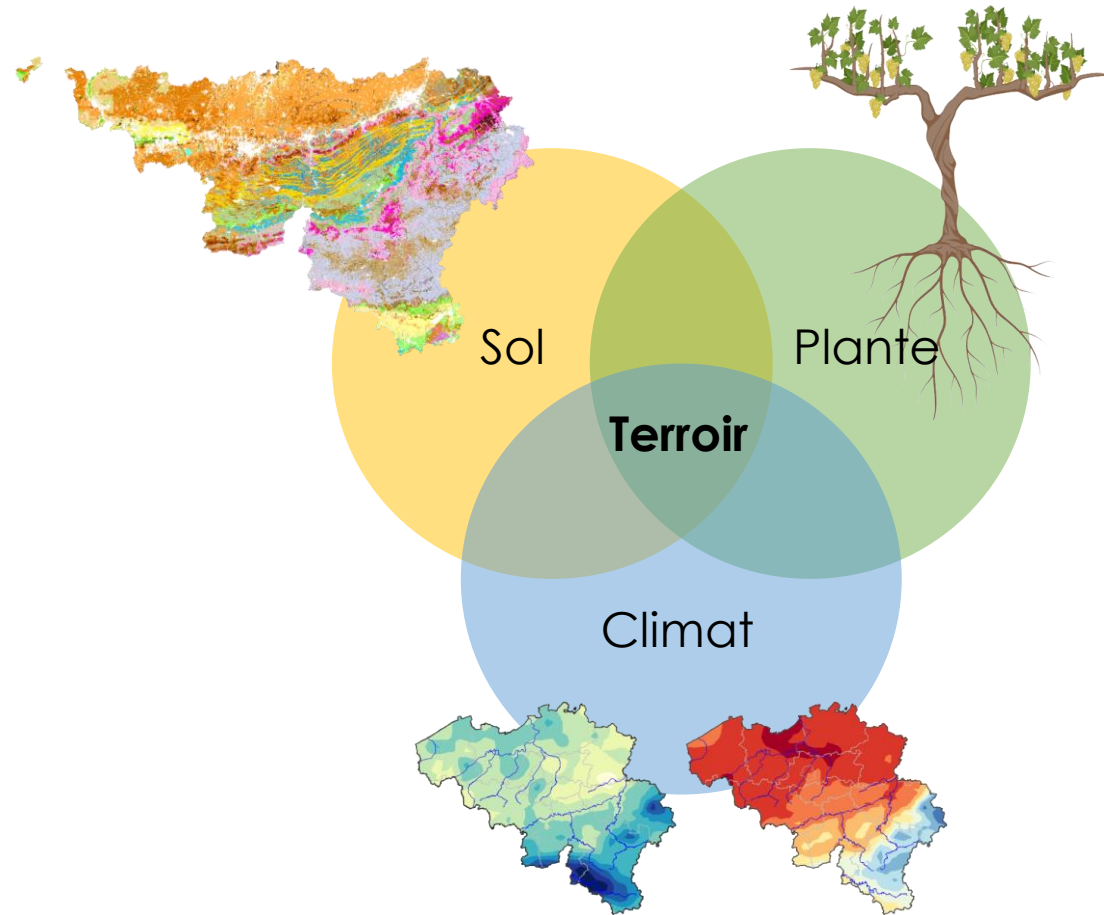
Malheiro et al., 2010

L'irrégularité des précipitations et l'augmentation des températures résultant des changements climatiques rendront probablement les épisodes de sécheresse plus fréquents dans de nombreuses régions, ce qui augmentera la demande en ressources en eau douce et créera des défis majeurs pour la viticulture (Gambetta et al., 2020).

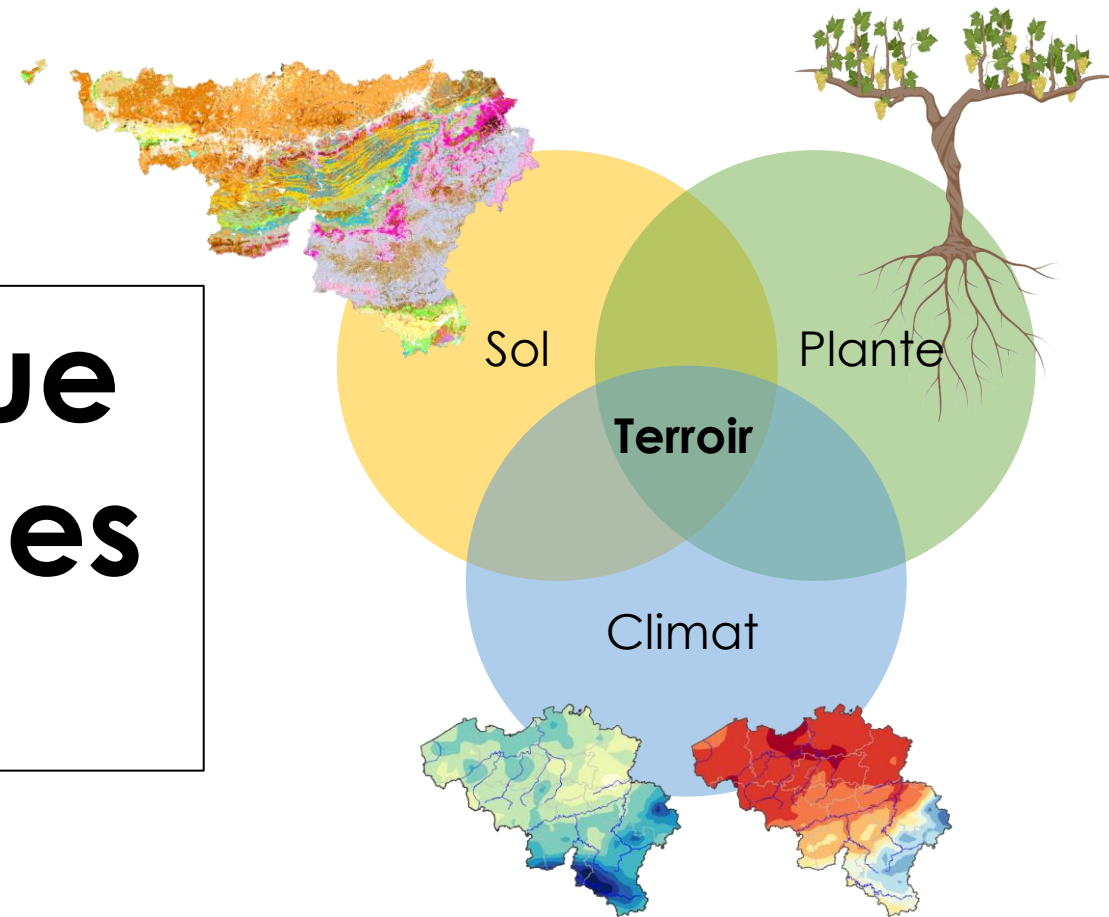


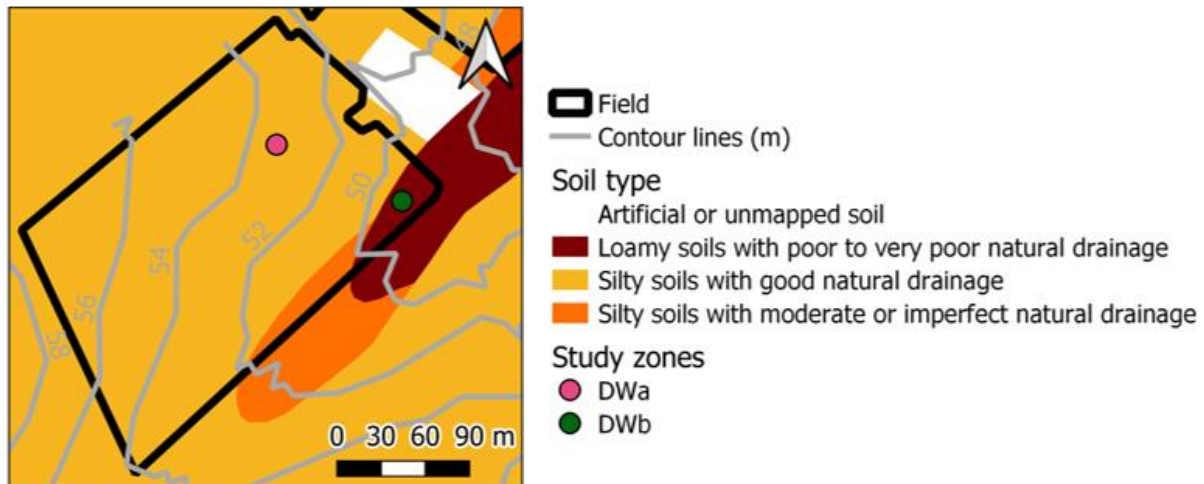
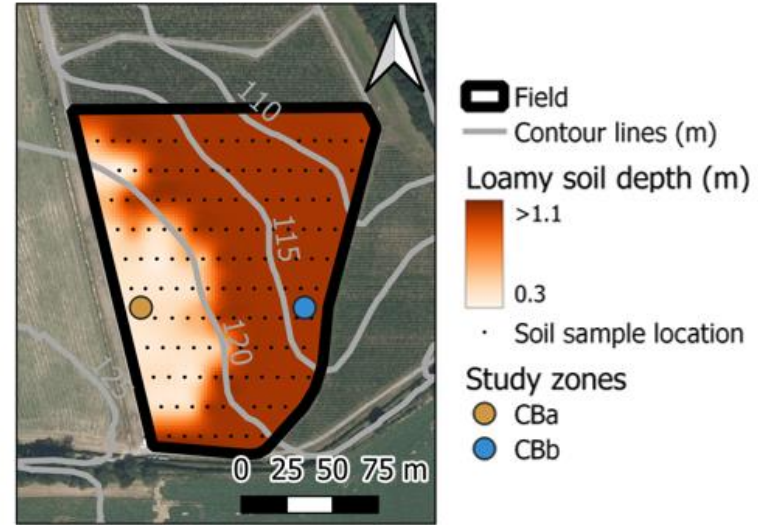
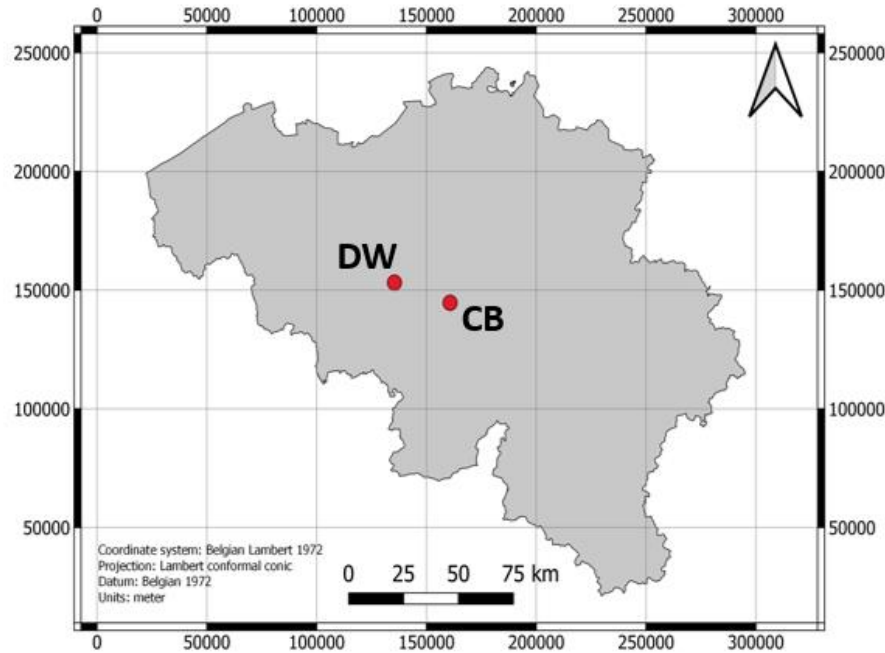


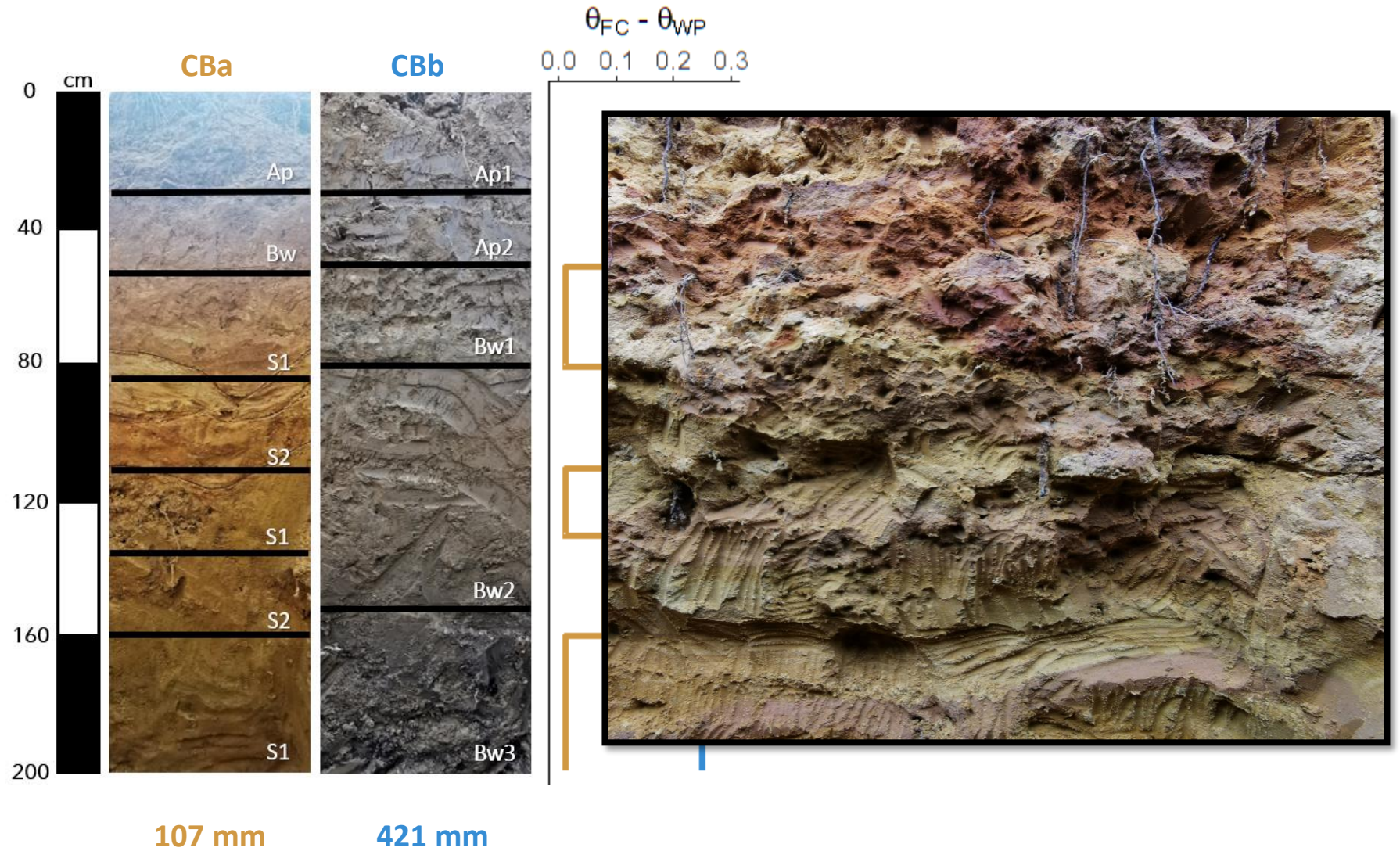
- Masse de la baie
- - - Sucres
- - - Acidité

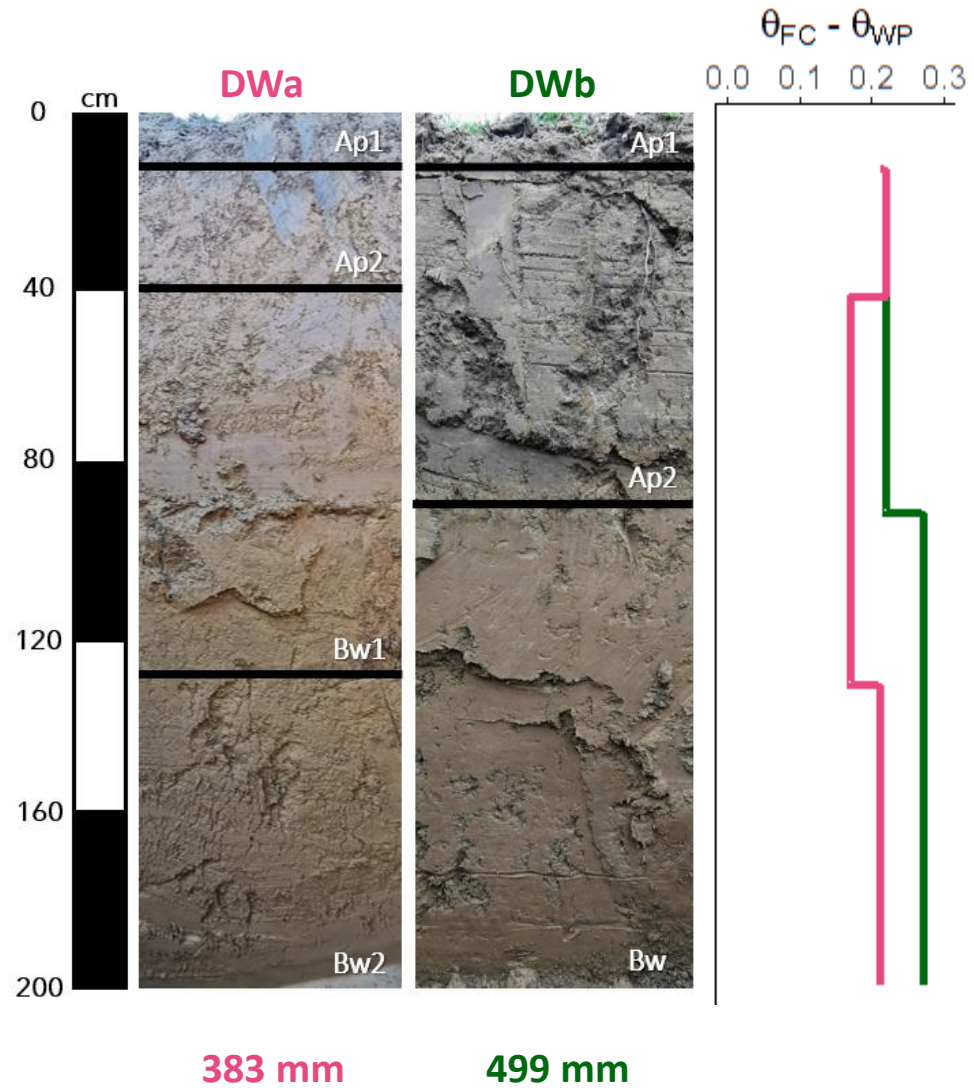
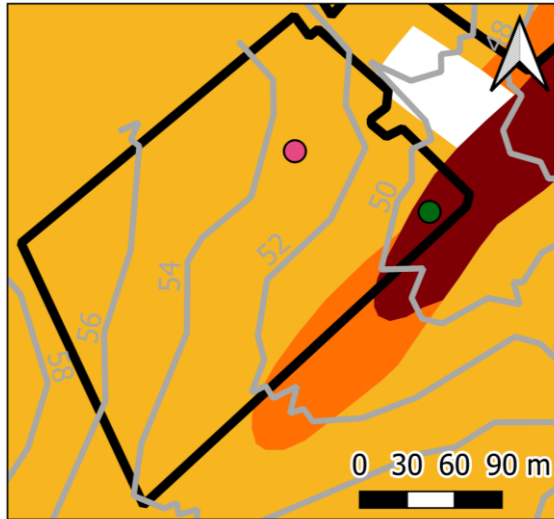


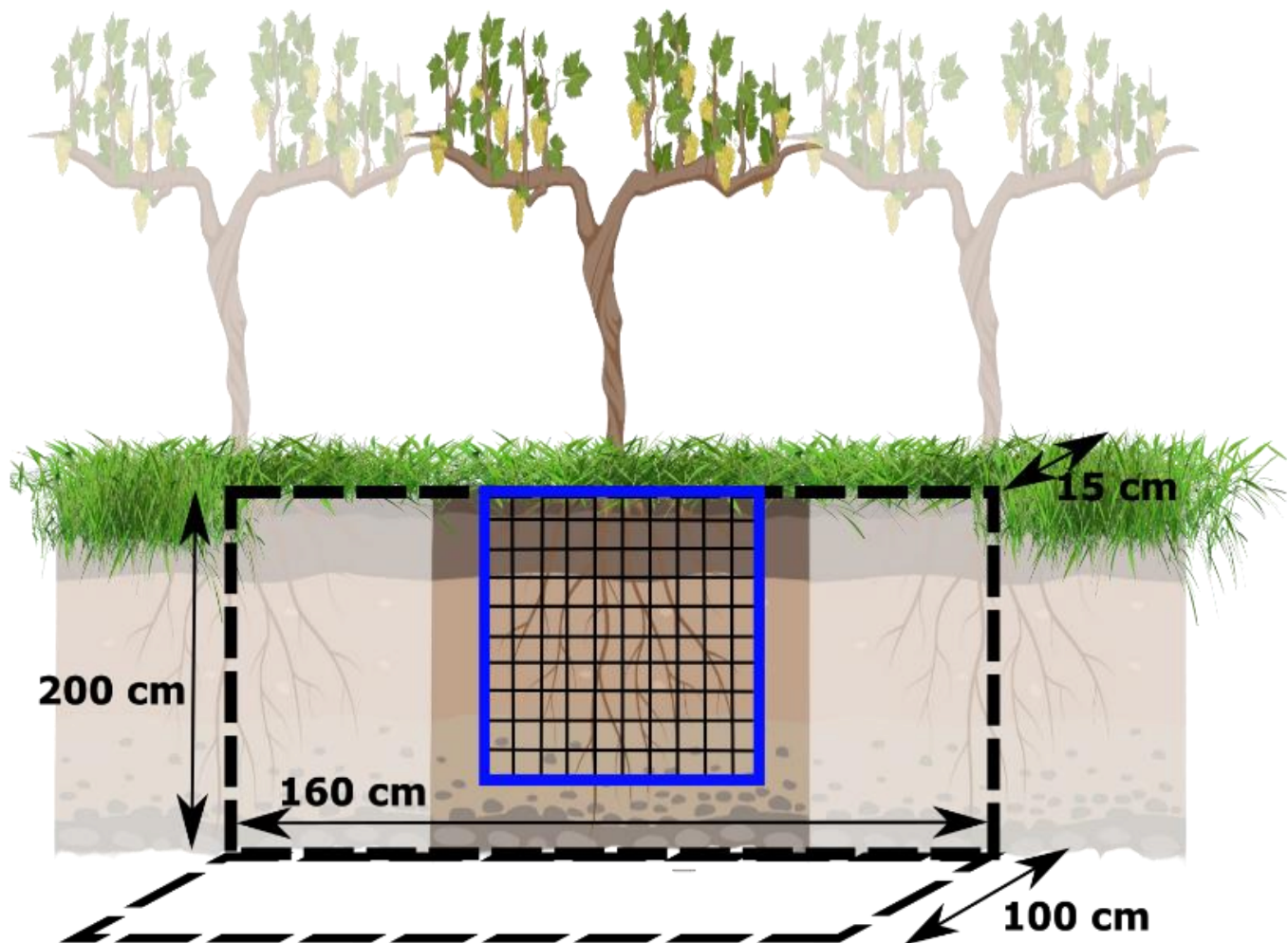
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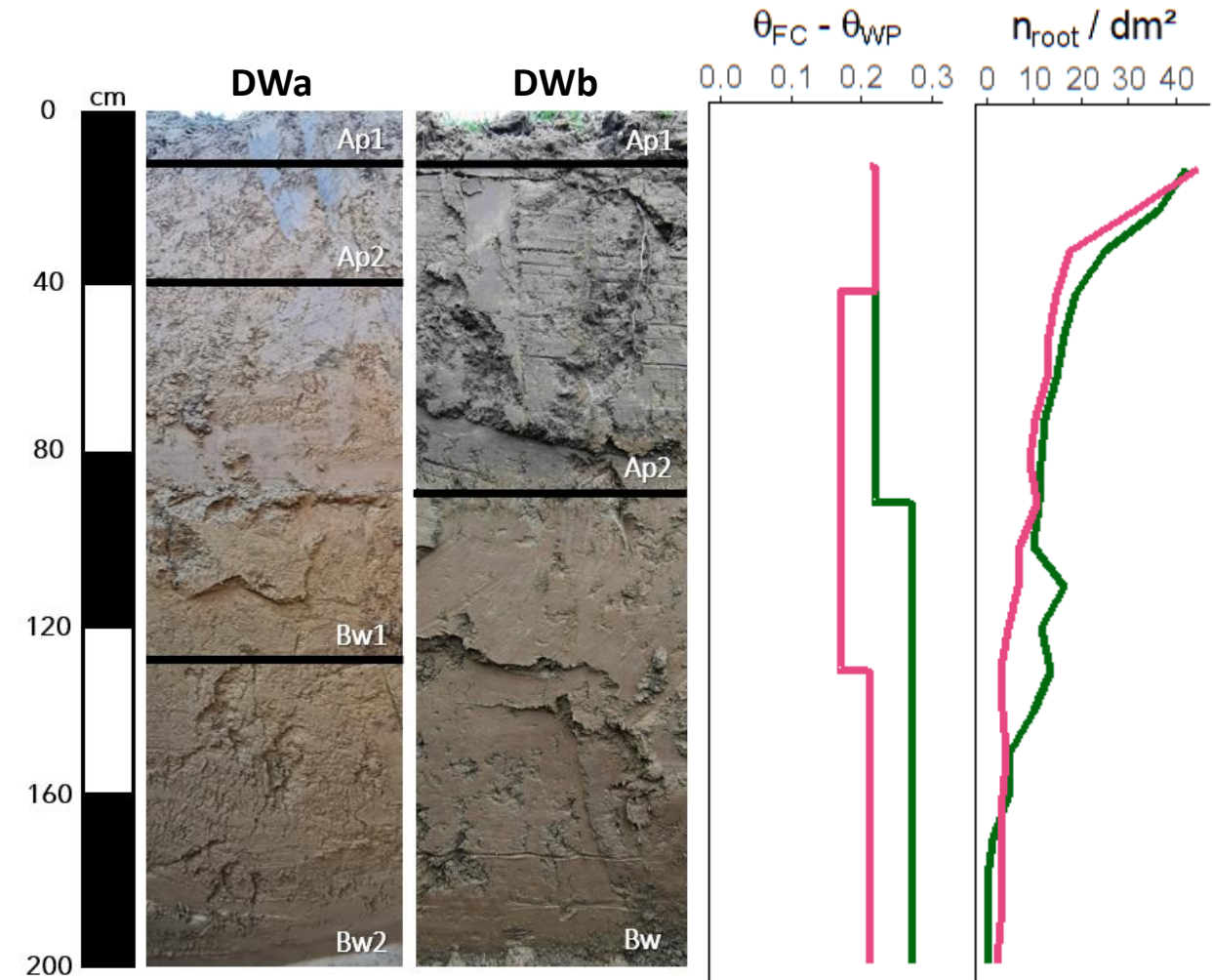
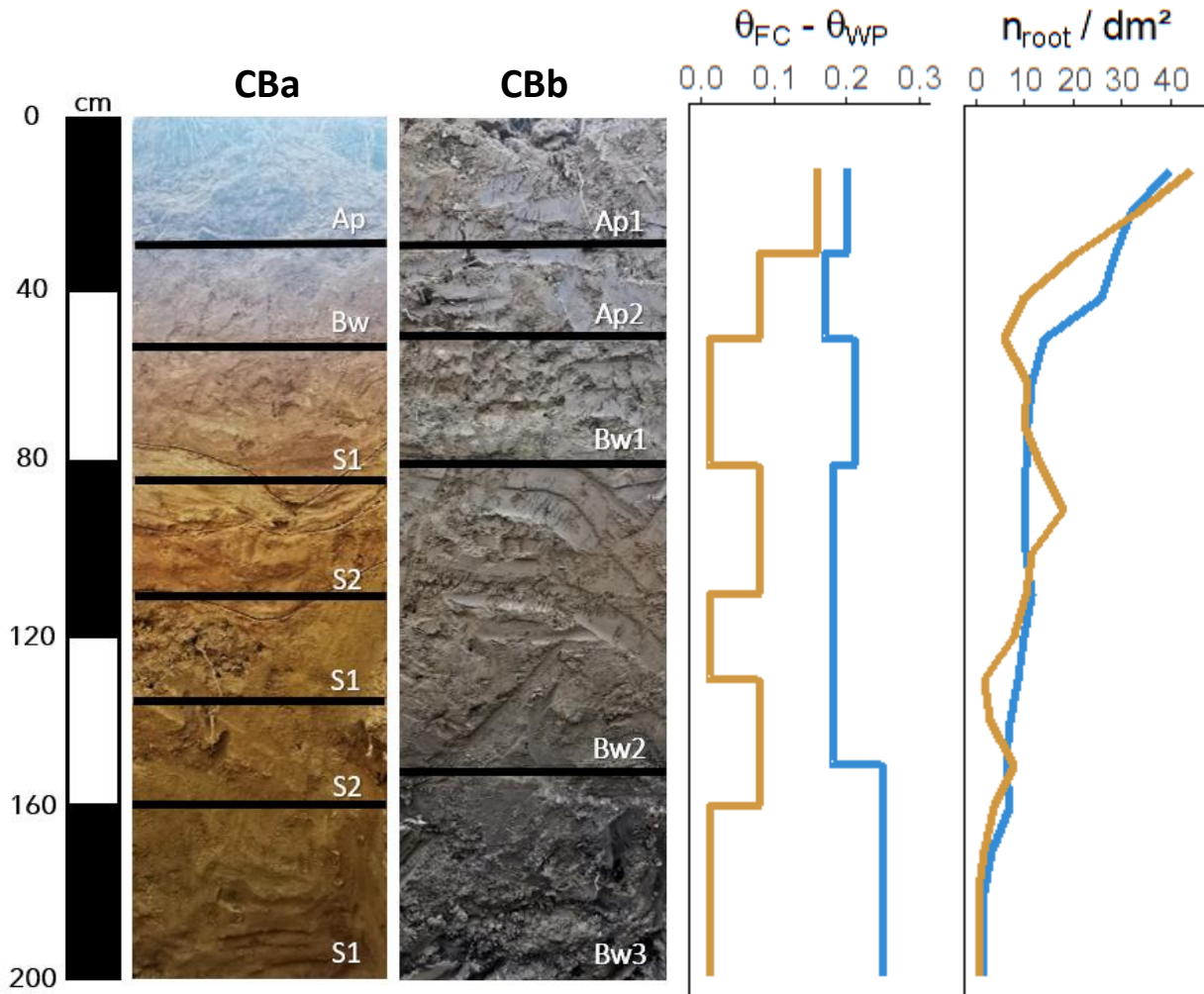




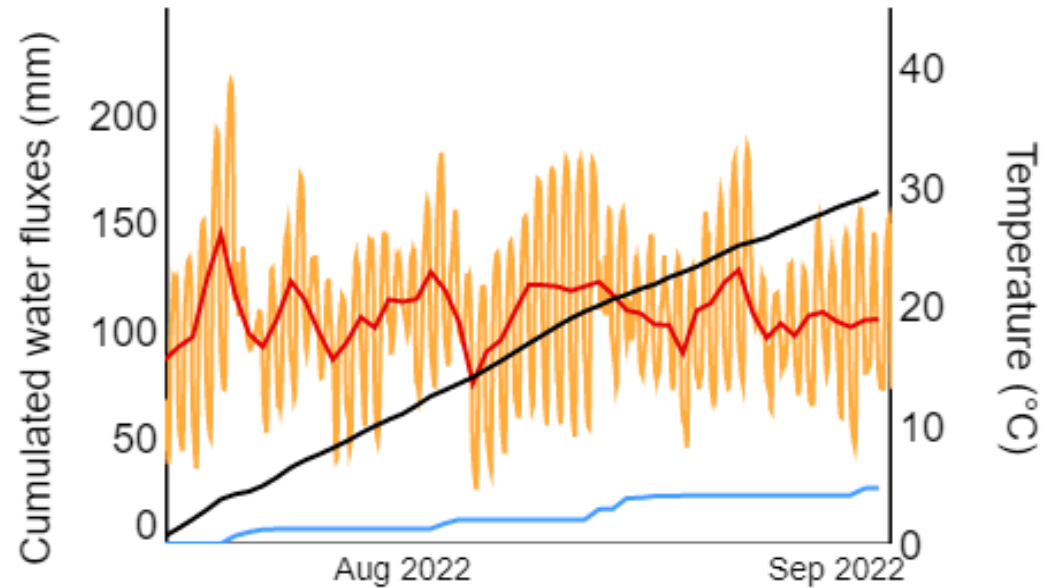






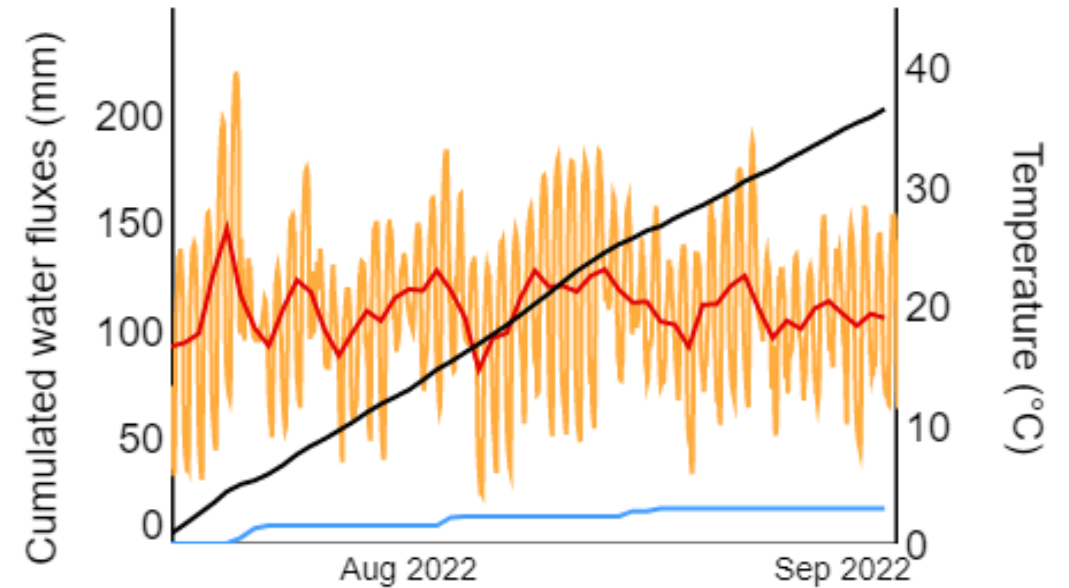


### Bousval



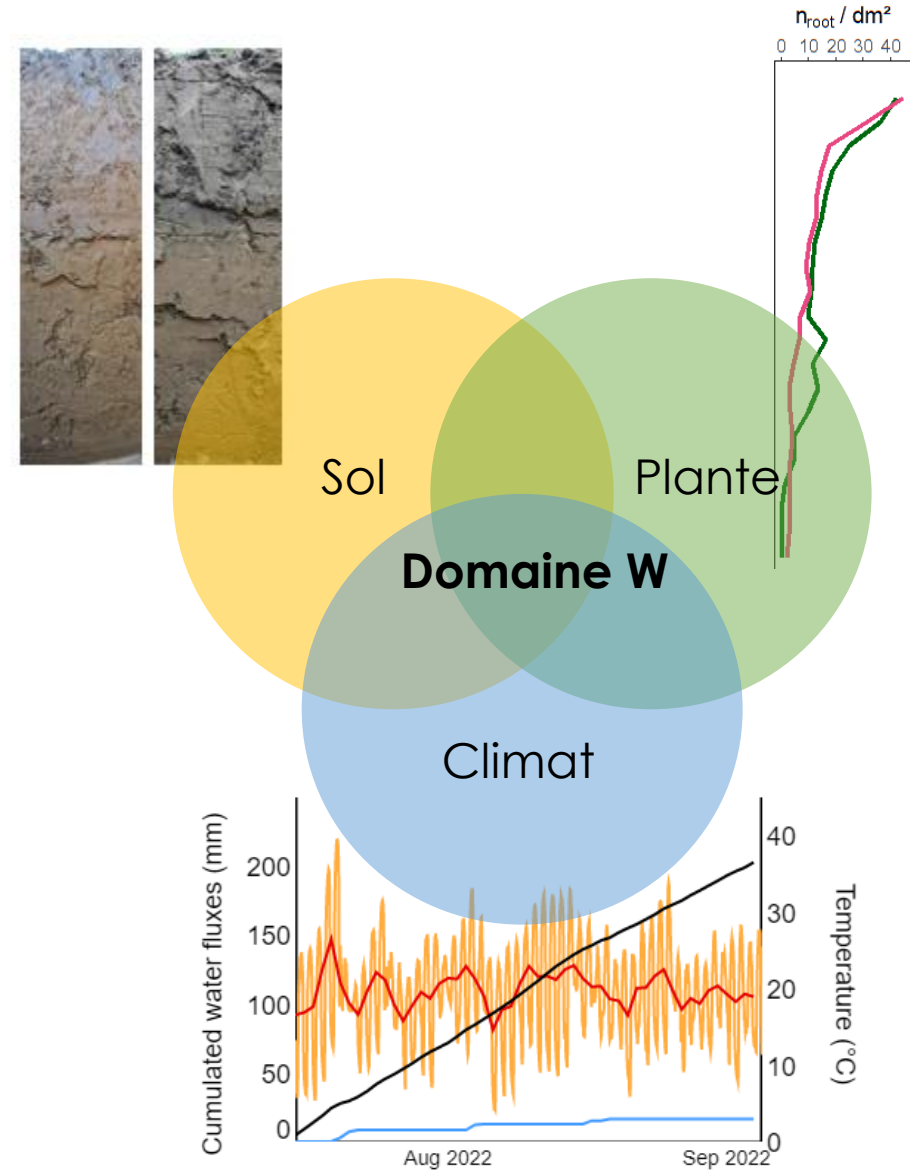
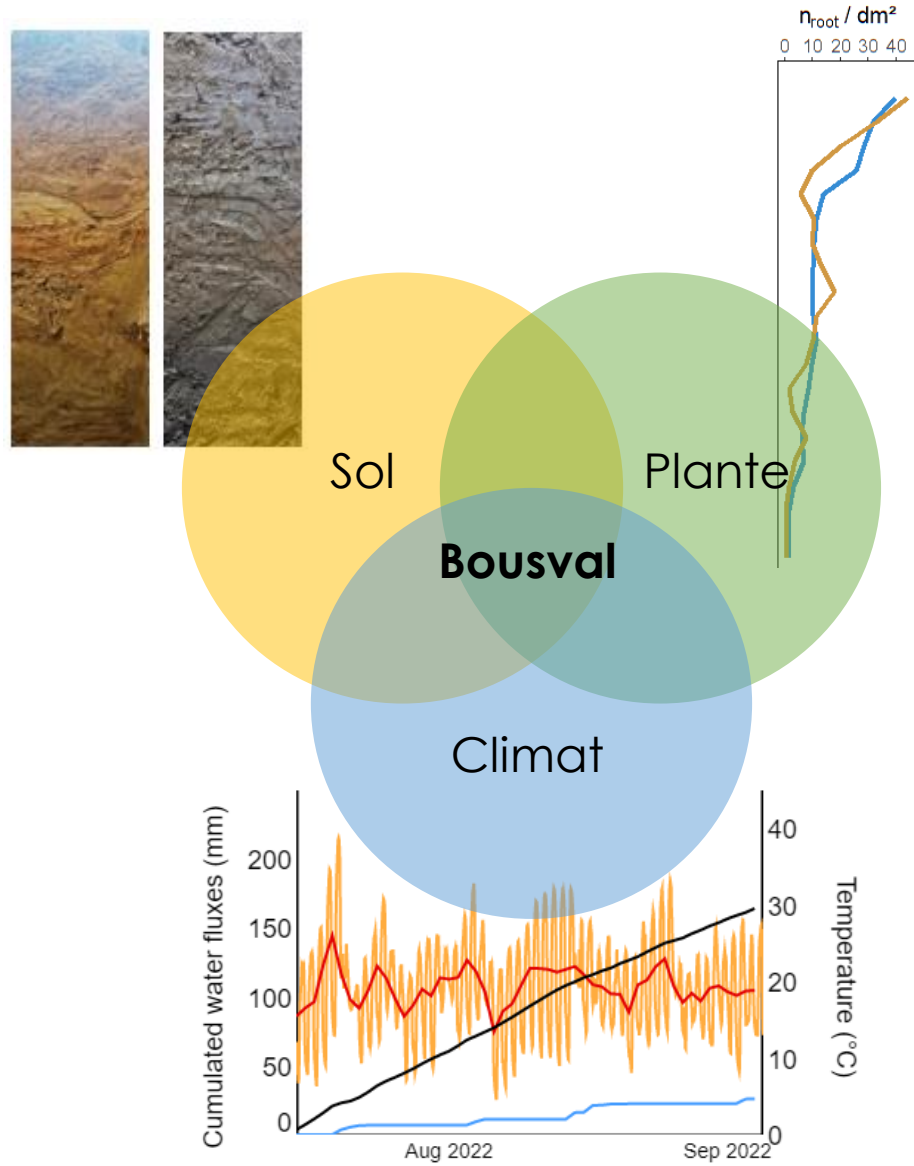
$$ET_{0\_cumul} - P_{cumul} = 193,7 \text{ mm}$$

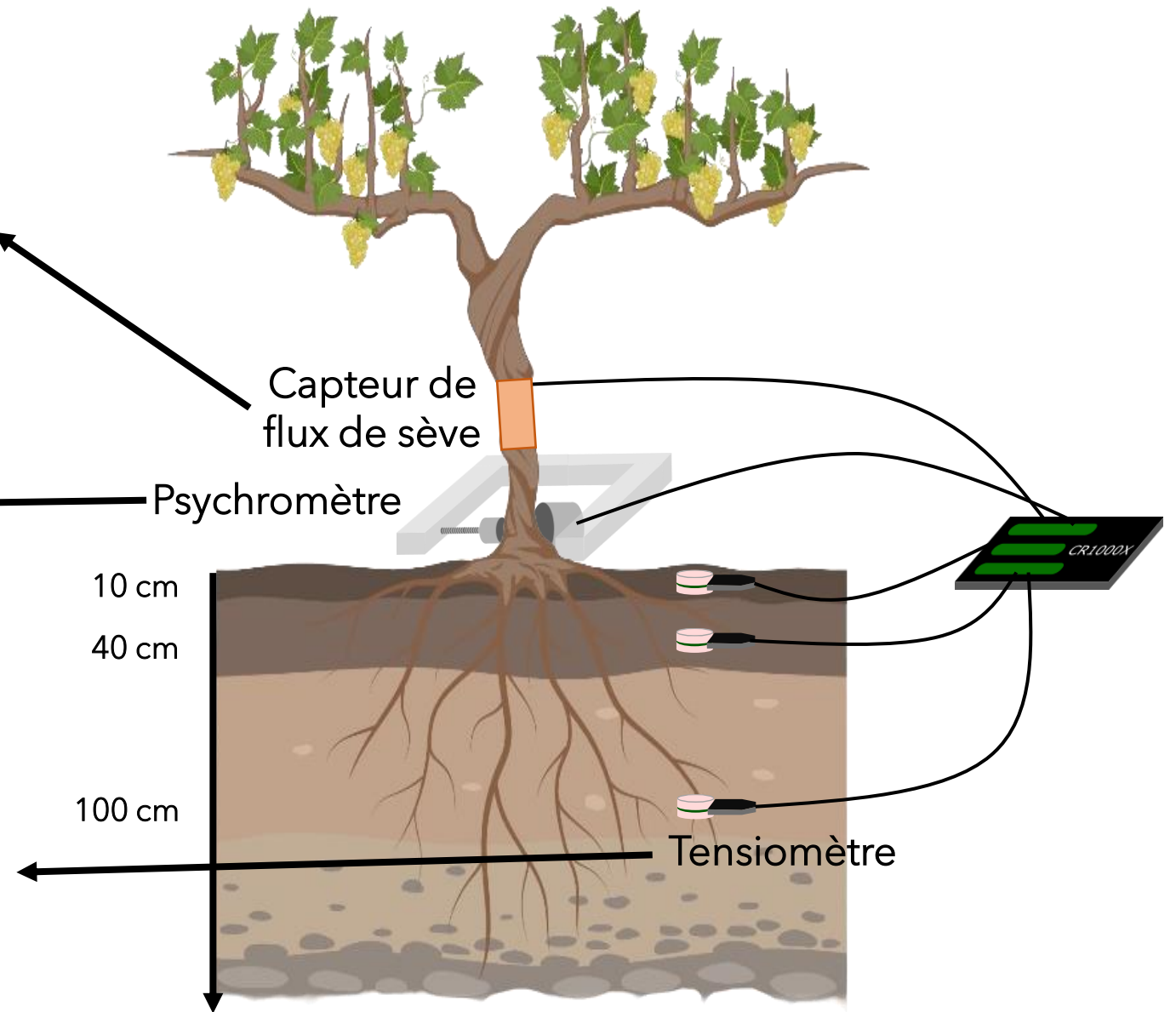
### Domaine W



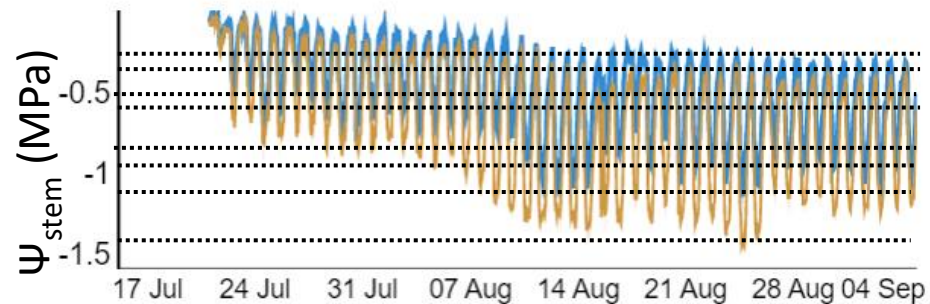
$$ET_{0\_cumul} - P_{cumul} = 203,4 \text{ mm}$$

- Précipitations cumulées
- Evapotranspiration potentielle cumulée
- Température horaire
- Température moyenne journalière

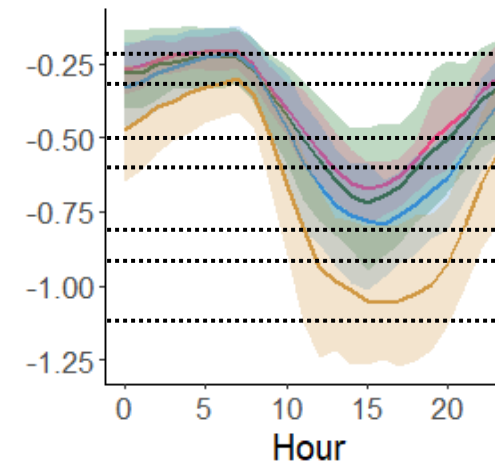
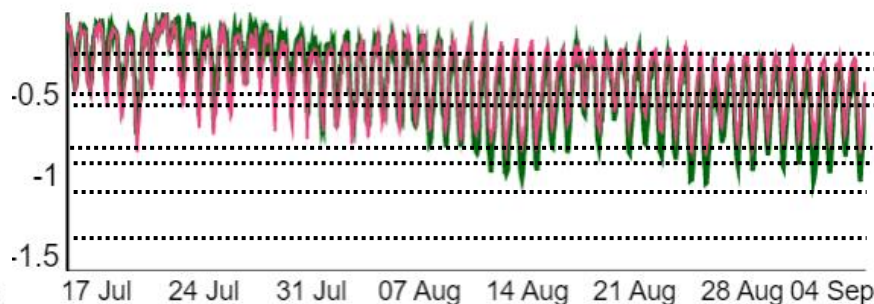




**Bousval**



**Domaine W**

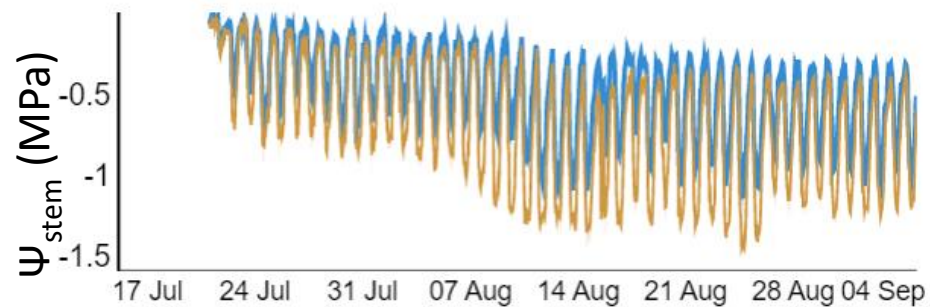


Water status	Midday stem WP (MPa)	Predawn WP (MPa)
No water stress	> -0,6	-0,2
Weak water stress	-0,6 to -0,9	-0,2 to -0,3
Moderate water stress	-0,9 to -1,1	-0,3 to -0,5
Moderate to severe WS	-1,1 to -1,4	-0,5 to -0,8
Severe water stress	< -1,4	<-0,8

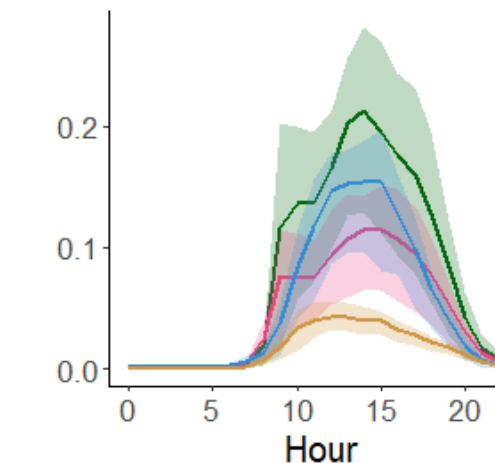
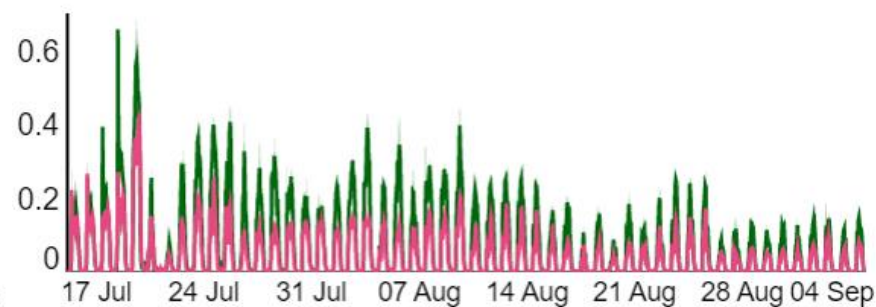
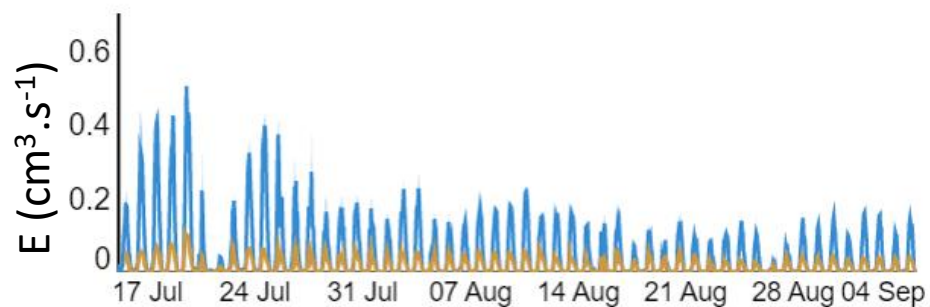
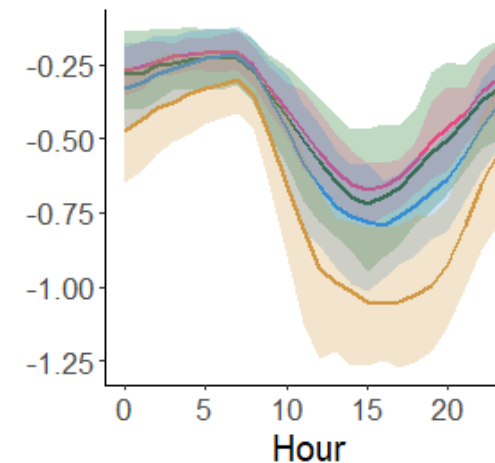
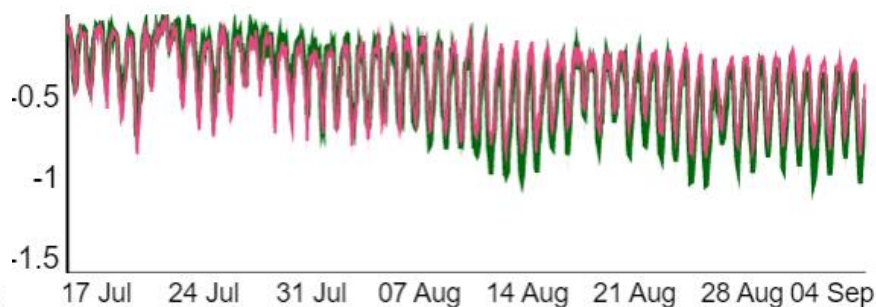
Van Leeuwen et al., 2020

Sableux  
 Limoneux  
 Argilo-limoneux  
 Limoneux

## Bousval

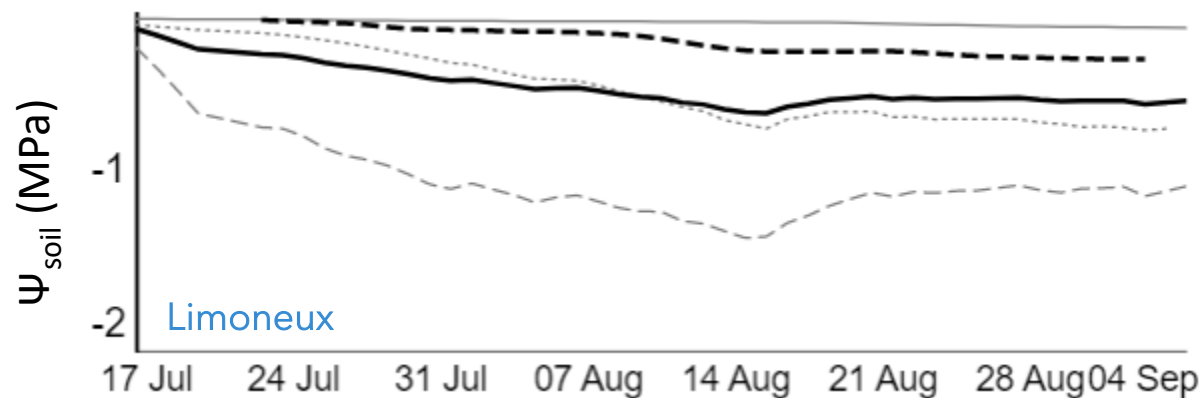
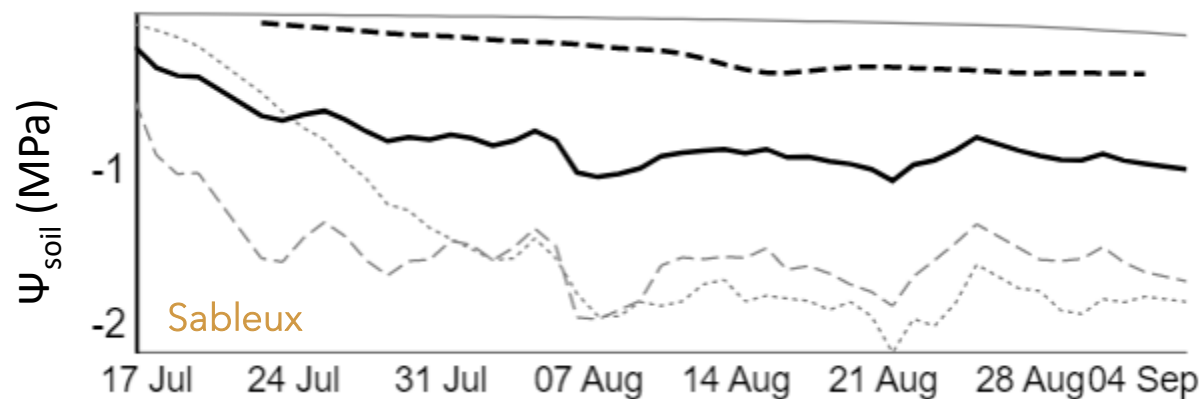


## Domaine W

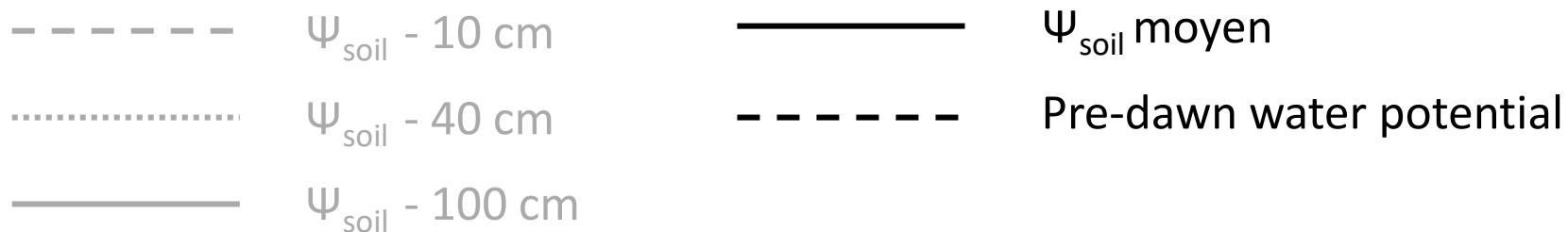
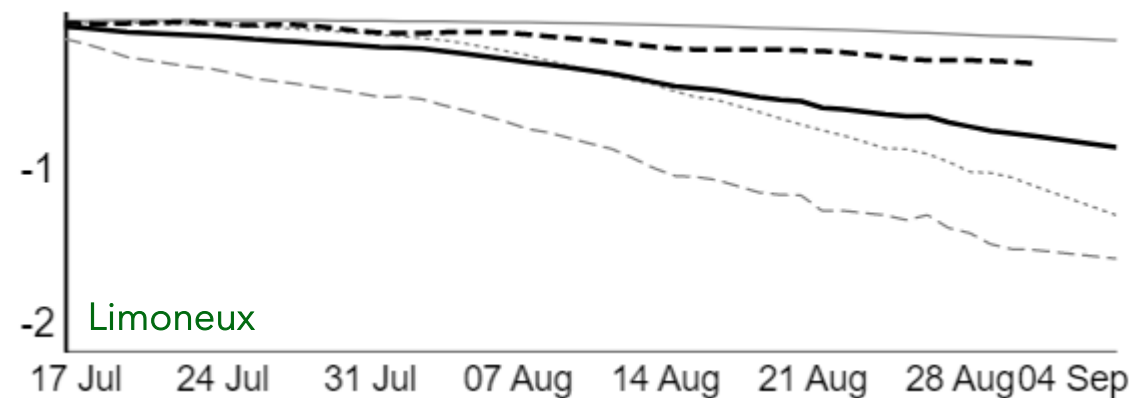
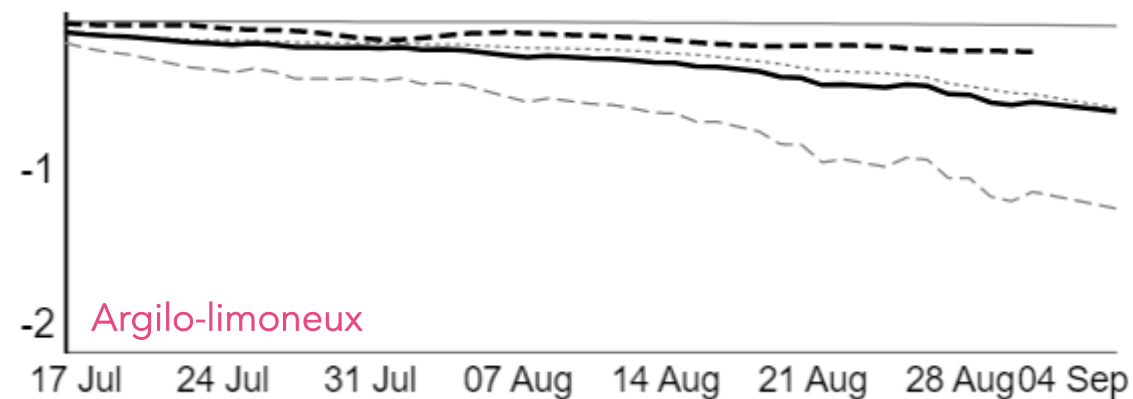


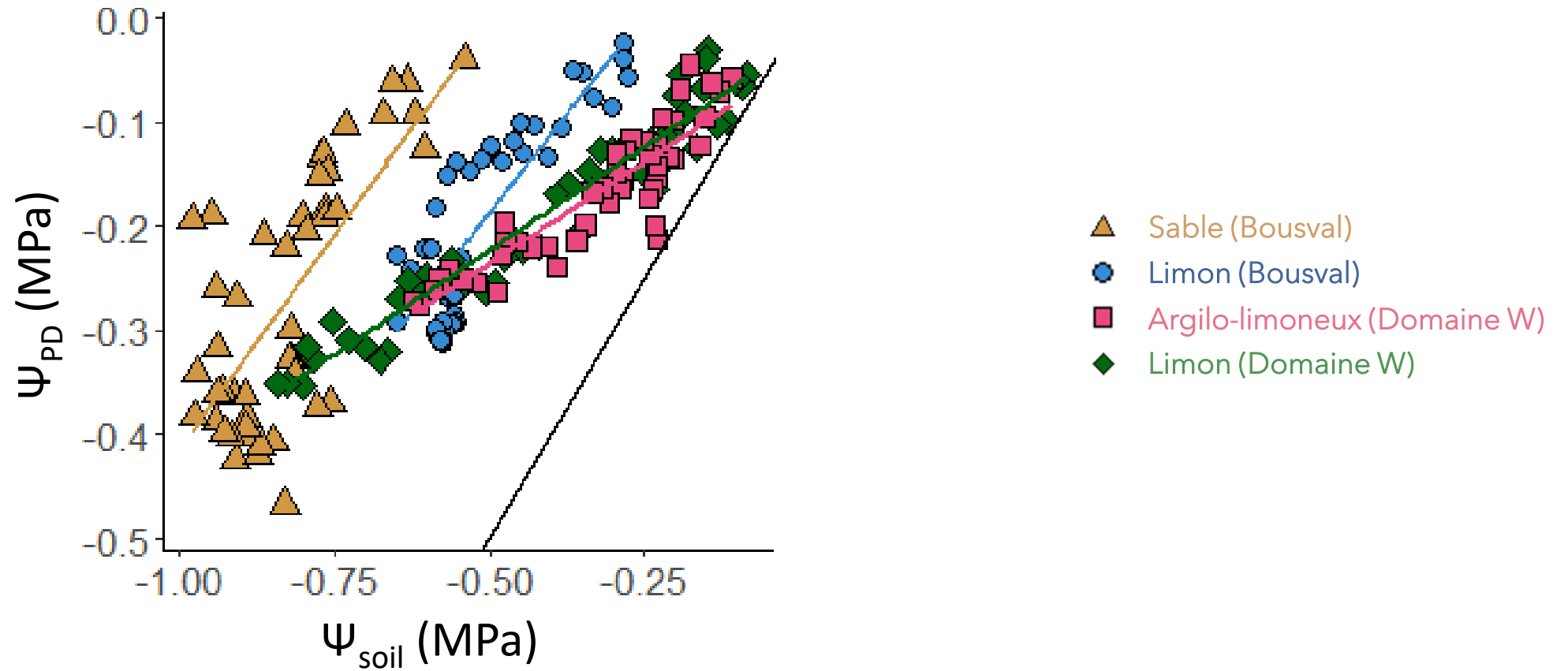
- Sableux
- Limoneux
- Argilo-limoneux
- Limoneux

## Bousval

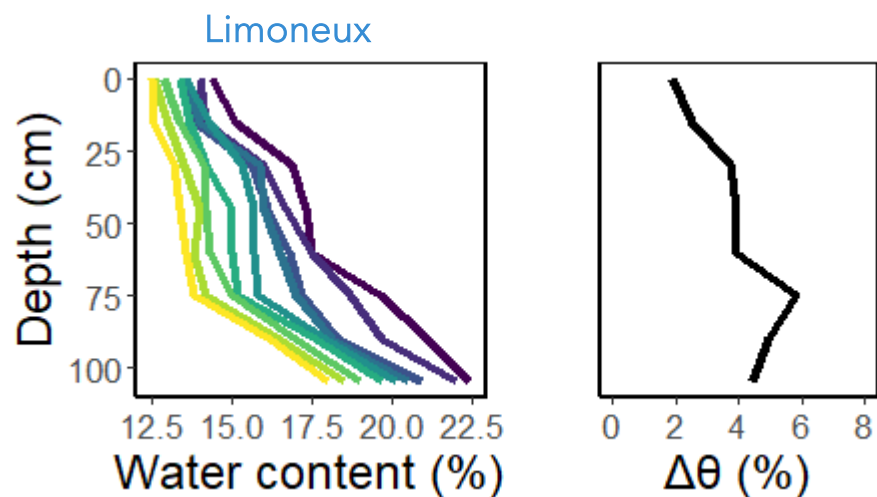
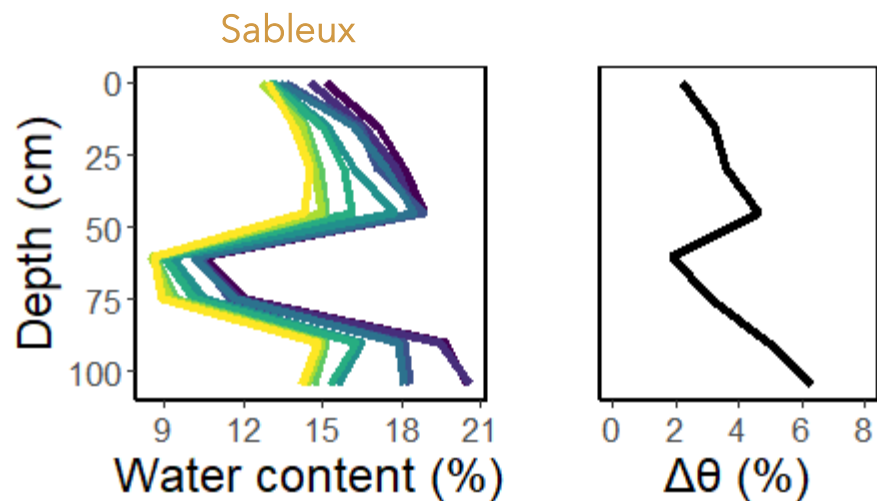


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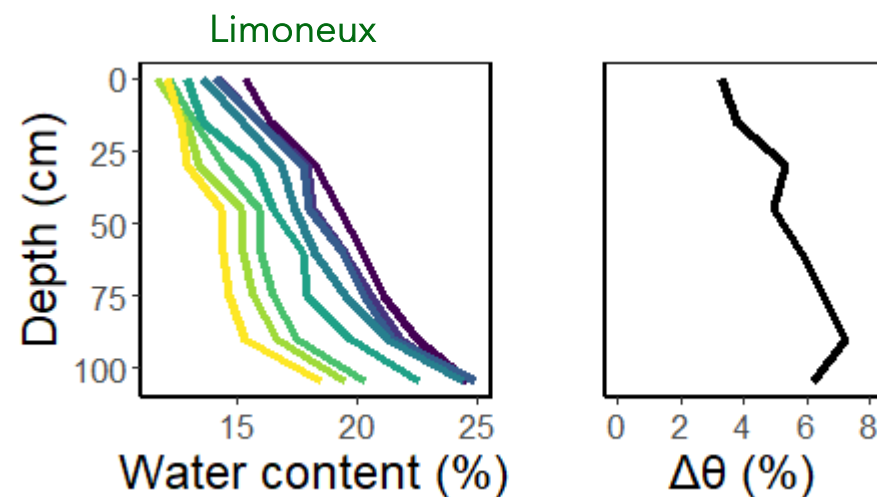
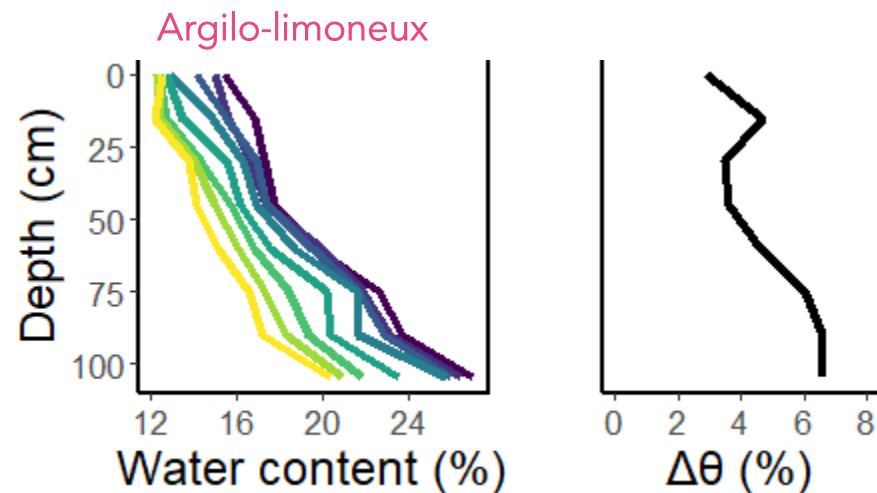


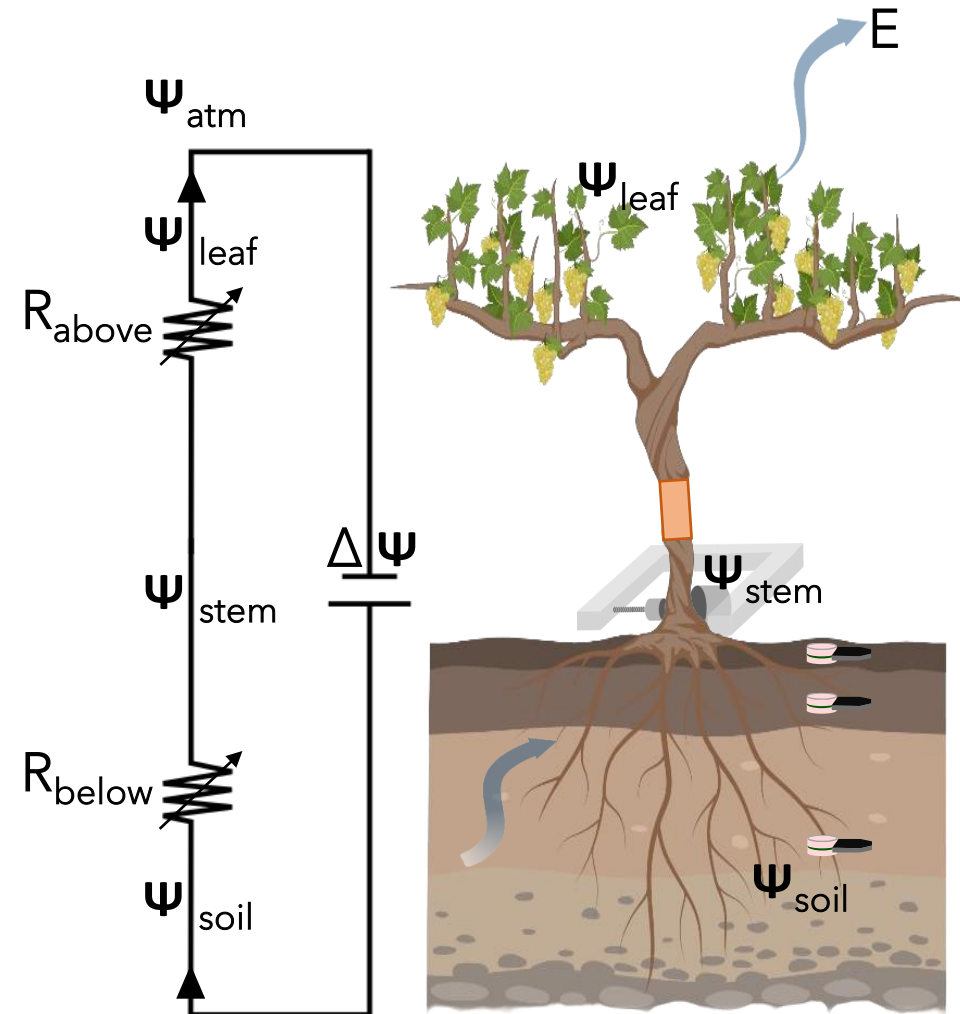


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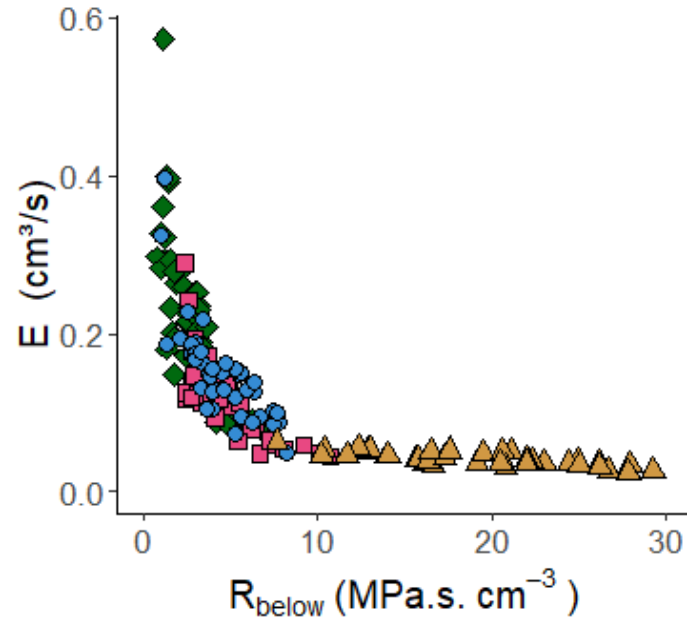
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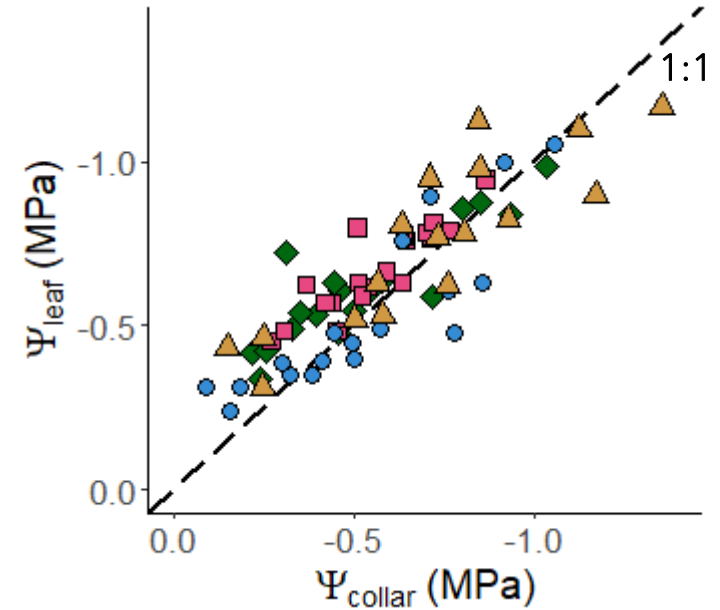
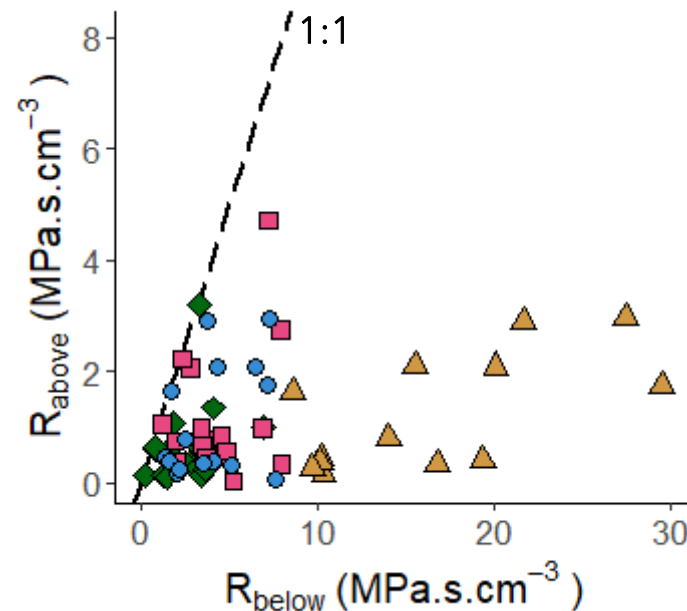


$$R_{\text{above}} = - \frac{\psi_{\text{leaf}} - \psi_{\text{stem}}}{E}$$

$$R_{\text{below}} = - \frac{\psi_{\text{stem}} - \psi_{\text{soil}}}{E}$$



- ▲ Sable (Bousval)
- Limon (Bousval)
- Argilo-limoneux (Domaine W)
- ◆ Limon (Domaine W)





**Merci !**

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