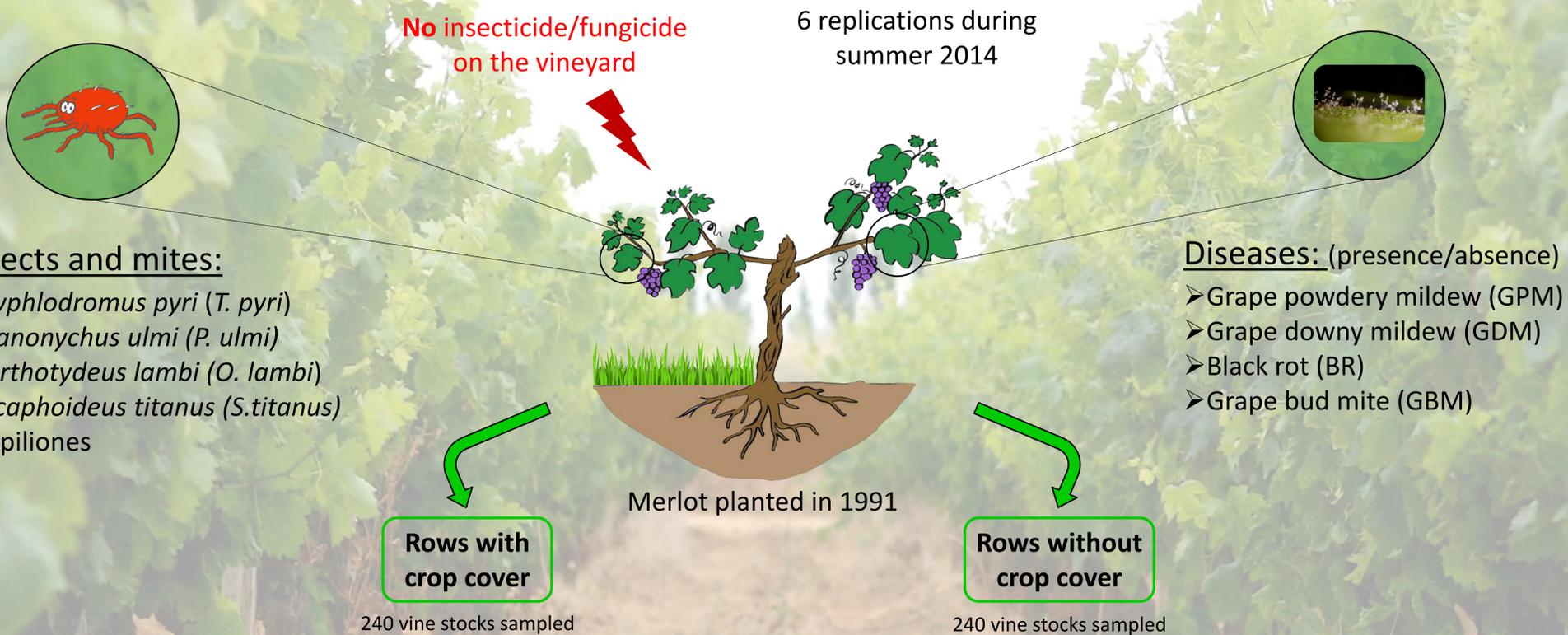


Introduction

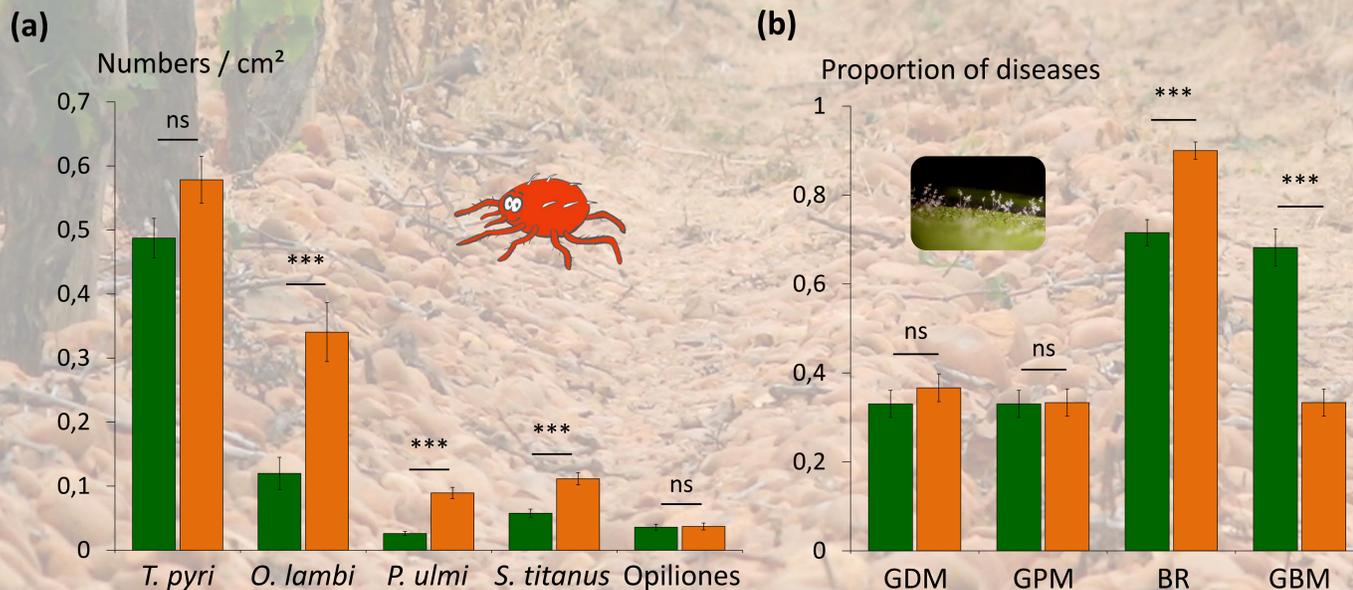
One common management practice in viticulture is complete or partial cover cropping between vine rows. It regulates mineral and water supply, and controls vigour and yield. Cover cropping improves the structure and the bearing capacity of the ground, protects the soil from climatic aggressions, facilitates the development of the biological activity but also reduces the vigour of the vine.

In most of reported cases, covering crop has positive effects on several natural enemies, mainly predators by providing food source, microclimatic beneficial conditions or even shelters. However, limited studies exist in vineyards and those focussing either on diseases, pests and vectors are very rare. In this study, we investigated the effect of **cover crop in vineyards** without chemical treatment on vine **disease** and **insects/mites present on the leaves**.

Material and methods



Results



Conclusion

Crop cover effect on insects and mites:

The **leafhopper** (*S. titanus*) and **2 mites species** (*O. lambi* and *P. ulmi*) were more numerous in rows **without crop cover**. Cover crop could provide a **shelter** to prey species inducing a reduction of the number/quantity of species present on the grapevine leaves. However, *T. pyri* and **opiliones** did not vary with the presence/absence of **cover crop**.

Crop cover effect on grape diseases:

Grape downy and **powdery mildew** were not affected by crop cover. The **grape bud mite** was more abundant in rows **with crop cover** contrary to the **black rot** which was more importantly occurring in rows **without covering crop**. This could be due to microclimatic modifications induced by the grass on the soil.