

Call for MASTER'S THESIS:

Influence of foliar treatments and different dates of the first application against powdery mildew on the disease infestation of grapes

Field and lab work

Powdery mildew (*Erysiphe necator*) is one of the most important diseases of grapevines. The primary infection occurs on the basal leaves in spring. It is unclear if shoots can also be infected directly via primary infections. Another research question is the effect of the leaf infestation before flowering on the degree of infestation of the grapes. The aim is to reduce the use of plant protection products in all production systems. Thereby the timing of pesticide application plays a decisive role.



The aim of this master's thesis is to treat the vines with fungicides at different phenological stages. The grapes are either treated or untreated (covered) in order to determine the significance of protecting the leaves on the grape infestation. A further goal is to determine at what time point the first fungicidal treatment must be started in order to be able to harvest the grapes without qualitative losses. The work is intended to provide information for more targeted applications of fungicides against powdery mildew and to identify potential savings.

Tasks:

- Covering inflorescences/grapes during each treatment in the vineyard (Location: Mailberg)
- Determination of phenology
- Determining the disease incidence and severity on leaves and grapes several times during the season
- Microscopic determination of diffuse colonization of the berries (1x)
- Determination of the number of chasmothecia (fruiting bodies) on the leaves under a microscope in the laboratory (1x)
- After flowering inoculation of berries with conidia of *Erysiphe necator* in the laboratory and determination of the disease incidence (1x)

*Laboratory
experience
is not
required.*

Duration: End of May 2024 to September 2024

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