

Msc Umwelt und Natürliche Ressourcen / Msc Environment and Natural Resource – Master Thesis

Arbeitstitel / Working Title	Early disease detection in plants	
MRU / Forschungsgruppe	Agrofoodsystems, Biodiversity & Ecosystems / Research Group for Viticulture	
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Abstract	<p>Many plant diseases become visible long time after infection occurred and a curative treatment is not possible anymore. To identify the possible infection times of important diseases in grape production (for instance powdery and downy mildew), forecast models such as Agrometeo.ch were developed. These models forecast based on meteorological data the date of fungicide treatment. Early disease detection allowing a curative treatment would enable a drastic reduction of fungicide treatments in agriculture. Therefore grapevine own genetic elements could be used to make diseases visible in a biosensor plant.</p> <p>The candidate will work on selected aspects of the identification of plant-pathogen recognition mostly with molecular methods and tissue reflectance.</p>	
Erforderliche Kompetenzen	<p>Background / interest in at least one of the following aspects would be very appreciated:</p> <ul style="list-style-type: none"> • Plant-pathogen interaction • Molecular biology • Reflectance imaging • Plant disease monitoring • Image analysis <p>Interest to contribute to research within international collaborations.</p>	
Bemerkungen	The topic of each Master's thesis is adjusted to correspond to the current state of research. It is not a must but the student is	



	encouraged to write the thesis in English
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