

Internship/ Thesis

Phytopathology intern: Studying the sexual cycle of *Venturia pirina*

Project type: MSc internship

Location: Wageningen Plant Research, Randwijk

Credits: 24 ECTS (or more, depending on duration).

Examiner: The student is in charge of finding an examiner.

Supervisor(s): dr. Kiki Kots, Melanie van Driel (PhD candidate)

Contact: kiki.kots@wur.nl; melanie.vandriel@wur.nl

Begin date: No later than December 2024; the exact starting date and duration are negotiable

Requirements: Basic understanding of phytopathology and microbiology; A basic understanding of the Dutch language is not required but is considered advantageous.

Description:

Venturia pirina, the causal agent of pear scab, presents a significant challenge to pear production. Current research aims to better understand the pathogen's lifecycle, which helps pinpoint key moments to target within management practices. *Venturia pirina* overwinters on fallen leaves, where it produces sexual fruiting bodies containing ascospores, which form one of the inoculum sources at the start of the growing season. This research project will study key processes during this phase, including ascospores' maturation, dispersal and germination. The data collected will be essential for developing a prediction model, a tool which guides effective management practices. The model falls outside the scope of this project. The student will coordinate and execute various experiments regarding the sexual lifecycle of *V. pirina*, gaining a hands-on learning experience in phytopathology. These experiments will take place both in the lab and the pear orchard in Randwijk.

Used skills: Experimental coordination, planning and design; microscopy; data analysis; scientific thinking and writing.