

Phytopathology intern: Studying the development of twig scab (*Venturia pirina*) in pear



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: December 2024 – January 2025; the exact starting date and duration are negotiable

Requirements: Basic understanding of phytopathology and microbiology; A basic understanding of the Dutch language and a driving license 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. Next to infecting leaves and fruits, *V. pirina* is able to infect twigs and produce lesions on wood releasing asexual conidia. This inoculum source makes *V. pirina* difficult to control in orchard condition, however, not much is known about this part of the life cycle of pear scab.

This research project will focus on the twig lesions part of the life cycle of *V. pirina*. The student will try to unravel what happens to the fungus in the twig during winter and spring, study what will happen during various orchard conditions and monitor spore flights in early spring. The student will coordinate and execute various experiments regarding twig scab, gaining a hands-on learning experience in phytopathology. These experiments will take place both in the lab, the pear orchard in Randwijk and various other orchards in the Netherlands.

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