

Master thesis projects in plant pathology for 2022

Below are suggestions for master thesis projects in plant pathology for 2022. However, other ideas for thesis work may be discussed further with one of the following teachers:

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1 Virus	Tobamovirus i vektshuskulturer
	<i>Tobamoviruses in greenhouse crops</i>

Viruses represent one of the most important threats to agriculture and horticulture. Several viral families include very stable and highly infective pathogens. Especially viruses in the genus *Tobamovirus* can cause unpredictable loss to tomato and cucumber production in Norway. In tomato, *Tomato brown rugose fruit virus* and other resistance breaking viruses and strains are posing a threat to the tomato industry. In cucumber, *Cucumber green mottle mosaic virus* has been a growing problem for the last decade.

The viral particles of tobamoviruses are extremely stable and infectious. They can be preserved in seeds for several years. In addition, tobamoviruses can survive outside of the host on inert and biological surfaces, as well as in water and soil for months or even years, without losing their virulence. Due to import of tomato and cucumber product as fresh vegetables and other products, we could be exposed to these viruses in our daily life, and infective virus particles may spread further into sewage, drainage and environmental waters which could be an unpredictable threat for plant health and food production in Norway.



Tobamovirus in tomato gives uneven ripening, necrosis and chlorosis.

Several aspects of tobamovirus identification, testing, epidemiology and control needs further investigations.

The master thesis project needs to be discussed and defined in cooperation with the student. Please contact Dag-Ragnar Blystad (dag-ragnar.blystad@nibio.no) or Zhibo Hamborg (zhibo.hamborg@nibio.no) for more information if you are interested in this topic.