

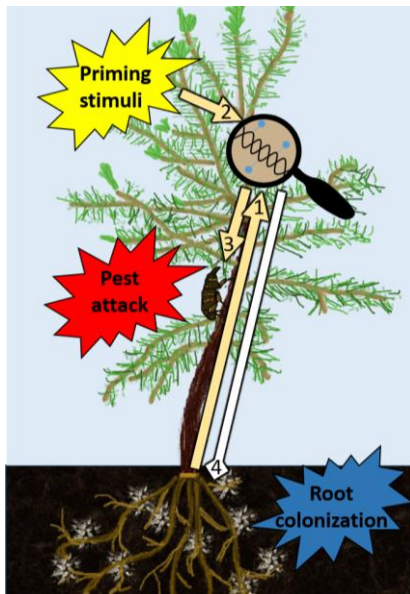
Topic/Title (Norwegian)

Kan vi vaksinere grantrær mot soppinfeksjon og insektangrep?

Topic/Title (English)

Can spruce be vaccinated against fungal infection and insect attack?

Picture



Summary :

Norway spruce (*Picea abies*) is an economically and ecologically important tree. The spruce bark beetle (*Ips typographus*) and its symbiotic pathogenic bluestain fungi may attack and kill healthy spruce trees, causing great economic and ecological losses. Treating spruce trees with the naturally produce chemical methyl jasmonate has been shown to help trees defend themselves against these attacks. This treatment is similar to a person getting a vaccination. The aim of this project is to identify natural chemicals that can be used to treat seedlings and increase the resistance of young spruce seedlings. This will be determined by treating seedlings with various amounts of natural chemicals and quantifying changes in defense gene expression in seedlings. The impacts of these chemicals on other traits, such as growth, will also be determined. The project involves mostly lab work, including some molecular analyses (training will be provided) and growing and maintaining young spruce plants.

Subject area (keywords): Molecular biology; plant biology; plant protection

Language thesis: Norwegian and/or English

Bachelor or Master thesis: Master Thesis

Credits: 30 or 60 credits



Bachelor or Master thesis BIOVIT 2022/23

Project/company

PROTECT: Priming for Resistance Of Trees and its Effects on microbial CommuniTies. The project is an ongoing work at NIBIO

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