

Eggplant (*Solanum melongena*) as indicator plant for *Verticillium*

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V. nonalfalae, the pathogen which is the main cause of the Verticillium wilt on hops, persists for up to five years in the soil and thus represents a constant source of infection for hop plants. Soils infected with Verticillium have to be disinfected. In order to check the effectiveness of various soil disinfestation methods, a search was made for a practical fast detection method. Today a qPCR-based diagnosis is performed to show if there is *Verticillium* in the hop plant. But there is no practicable way to detect and quantify *Verticillium* in soil. A growth test of soil does not fit the practical needs for detecting *Verticillium*. Hops is difficult to infect and often shows delayed wilt symptoms. Therefore, hop itself is no option even for testing soil in pots. One possible indicator plant is the eggplant. Symptoms are developed after five to six weeks post inoculation.

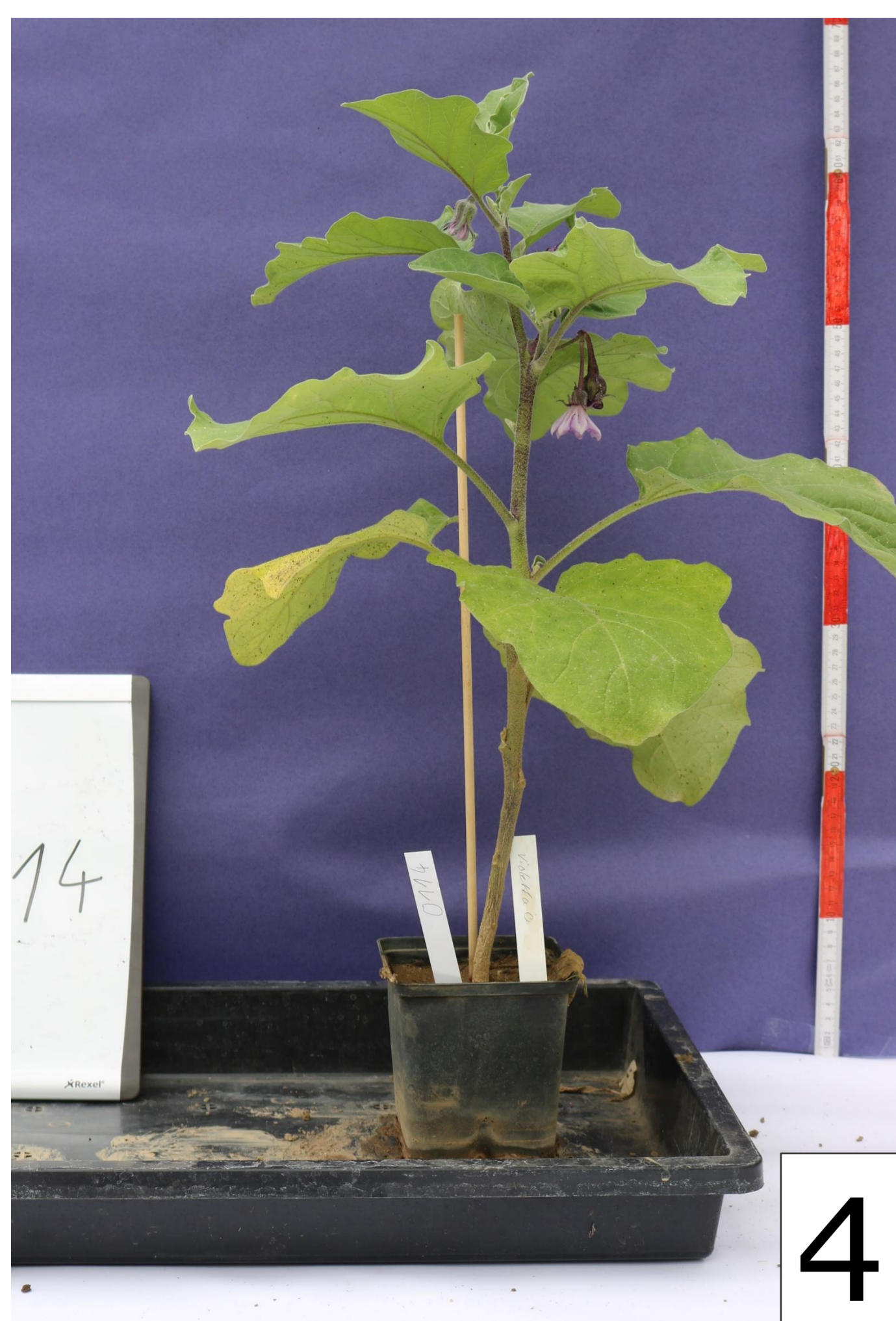


- 1 Sowing eggplant in soil
- 2 Homogenize the *Verticillium*-infected soil
- 3 First symptoms after 5 weeks potting plants into *Verticillium*-infected soil
- 4 untreated control plant
- 5 Infected eggplant with wilting symptoms
- 6 Close up of the symptoms



successful symptom development in 50% of the infected plants

→ **Eggplant as indicator plant for *Verticillium*-contaminated soil**



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