Induction of Antimicrobial 3-Deoxyflavonoids in Pome Fruit Trees Controls Fire Blight

Abstract:
Fire blight, a devastating bacterial disease in pome fruits, causes severe economic losses worldwide. Hitherto, an effective control could only be achieved by using antibiotics, but this implies potential risks for human health, livestock and environment. A new approach allows transient inhibition of a step in the flavonoid pathway, thereby inducing the formation of a novel antimicrobial 3-deoxyflavonoid controlling fire blight in apple and pear leaves. This compound is closely related to natural phytoalexins in sorghum. The approach does not only provide a safe method to control fire blight: Resistance against different pathogens is also induced in other crop plants.
Occurences:
- Einrichtungen > Fakultäten > Fakultät Wissenschaftszentrum Weihenstephan > Forschungsdepartments > Department für Pflanzenwissenschaften > Fachgebiet Obstbau (Prof. Schwab komm.) > 2003

Entries: