Integrated control of Pythium in flowerbulb production

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Abstract

In the Netherlands open field production of flowerbulbs, annual flowers and hardy perennials has a total yearly value of at least 700 M€. The growers are faced with several threatening soil-borne problems during the production. Root rot caused by *Pythium* spp. is one of the major problems in flowerbulb production in the sandy soils behind the Dutch dunes. There is only one fungicide available that growers use to control the disease. As this fungicide is becoming less effective, growers are looking for new solutions to control *Pythium*. Applied Plant Research is developing these solutions in collaboration with Wageningen University and bulb growers.

The general approach for these new solutions is the integration of different measures, varying in mode of action, into one ‘soil health’ management strategy.

For the control of Pythium this includes crop rotation, different types of (organic) fertilization, incorporation of green manure crops, the biological control agent *Pseudomonas fluorescens* SS101 and fungicides. Results of the effects of a long term strategy including the application of a combination of these measures will be presented. The integration of these different measures in one ‘soil health’ management strategy will be discussed.