



Vidi Fortum® Bulletin 2022

A potential partner
for AQ10

Koppert

Partners
with Nature

Vidi Fortum® stimulates spore germination in the powdery mildew hyperparasite, *Ampelomyces quisqualis* (AQ10®)

An *in vitro* study was carried out to evaluate the biostimulatory effects of three commercially available plant biostimulants on the germination of *Ampelomyces quisqualis* spores in the bio-fungicide product AQ10®

Vidi Fortum® is a plant biostimulant which is normally applied to a range of edible crops to enhance vegetative growth. Biostimulants based on seaweed extracts have long been advocated as potential stimulants of naturally occurring and commercial disease biocontrol agents.

AQ10® is a water dispersible granule formulation containing 5×10^9 spores of *A. quisqualis* per gramme of product. This hyperparasite can attack a wide range of powdery mildew fungi. On-label approvals for AQ10® exist for a range of protected crops including aubergine, courgette, summer squash, cucumber, melon, pepper, chilli, strawberry, tomato, winter squash and pumpkin. The hyperparasite's mycelium penetrates the hyphal wall of a host mildew species, causing cytoplasmic degradation and death.

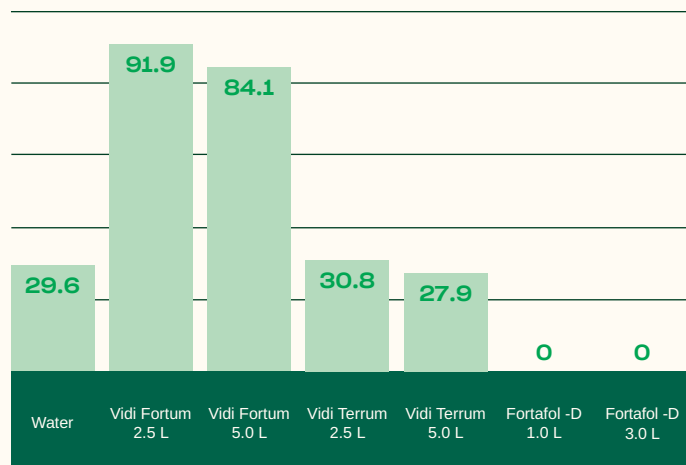
Variable and inconsistent levels of control

AQ10® spore germination can be adversely affected by environmental conditions, and the rate of development within the host can be slow. This can lead to reduced efficacy levels.

New data

Three commercial plant biostimulants were tank mixed with a known AQ10® spore inoculum concentration. Each biostimulant was tested at a low rate and high rate, to represent the lower and upper rates being applied to different crops in various situations.

% *A. quisqualis* spore germination



The low and high concentrations of Vidi Fortum® gave a significant increase in the percentage germination of *A. quisqualis*, compared to Vidi Terrum®, Fortafol® and water control.

This is the first time that a biostimulatory effect of Vidi Fortum® on AQ10® spore germination has been demonstrated. This effect could ultimately lead to better germination under a range of less favourable phylloplane conditions, which in turn could lead to improved infection rates and establishment *in vivo*.

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