

## Holistic Management of Root Diseases in Ornamentals

Persistent rainfall throughout January and February means that as we move into March, waterlogged, heavy and cool growing media and soils can create ideal conditions for root borne pathogens in ornamentals. At this time of year, plants are not yet fully active, and water management is of key importance. A number of steps can be taken to implement holistic growing practices and keep ornamental root diseases at bay.

### Growing media: Choosing the right mix and fertilisation for your crop

In bedding plants and nursery stock, choosing the right potting mix with a suitable structure for your crop is imperative, ensuring optimal aeration and drainage.

DCM Vivisol, a soil improver rich in organic vegetable matter with *Bacillus sp.*, can be added to the mix to create good structure and an optimal root environment. DCM ECOR 5 organic fertiliser can be incorporated into the potting mix or top dressed for controlled nutrient release between 100 and 150 days. Osmocote 5 Controlled Release Fertiliser (CRF), with nutrient matching technology, can also be incorporated to provide long-term, balanced nutrition to the crop.

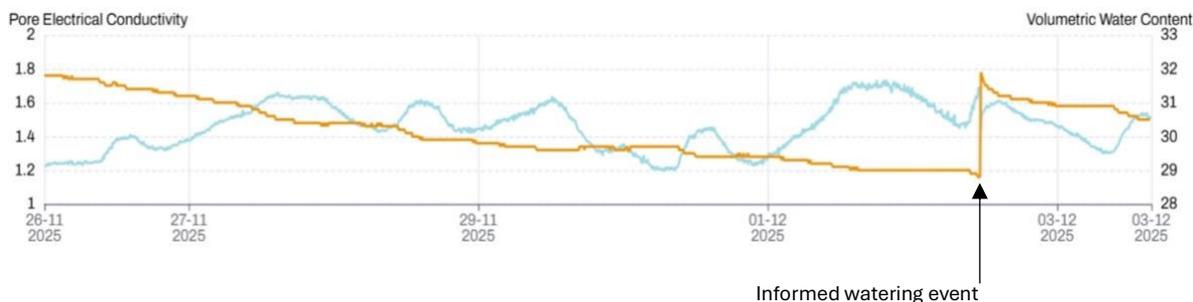
Choosing the right mix and fertiliser helps to produce resilient plants which are less susceptible to pathogen attack. Organic inputs also help to foster a healthy root zone microbiome, boosting root and foliar growth.

### Using sensors for real-time monitoring of growing media and soil conditions

Fargro has an exclusive distribution partnership with [Aranet](#), the global leaders in wireless sensor solutions for horticulture. Aranet manufacture a wide range of remote sensors to comprehensively monitor the conditions in your growing environment.

Aranet Soil Sensors (WET150) monitor soil volumetric water content, electrical conductivity (EC), and soil temperature. By maintaining a balanced nutrient supply, with the inclusion of organic nutrition, a diverse microbial community can thrive within the root zone, helping to exclude pathogens. Excess nutrition is prevented, meaning that plants are more resilient and opportunistic pathogens are unable to exploit the rhizosphere. Furthermore, spikes in EC are avoided, preventing root burn. Plants are healthier, avoiding both root zone and foliar pathogen entry.

Tracking parameters such as **volumetric water content** and **pore EC** (graph below) can help growers to maintain conditions that are optimal for their crops and inform when watering is needed.



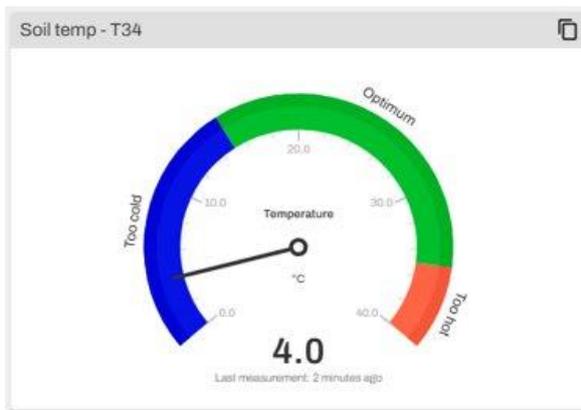
The Bluelab Pulse Meter can also be used during crop-walking for on the go diagnostics. Designed to deliver real-time insights into moisture, EC, and temperature directly from your substrate, this tool is ideal for spotting trends and identifying root zone issues early.

### T34 Biocontrol

T34 Biocontrol is a biofungicide containing *Trichoderma asperellum* strain T34. The product has EAMU Authorisation for container grown and permanent protection with full enclosure ornamental plant production.

By applying T34 Biocontrol, beneficial fungi establish around the root system, creating a protective barrier. These microbes help suppress harmful pathogens, improve nutrient uptake, and promote healthy root development, leading to stronger, more resilient plants.

Using the Aranet Cloud widgets, optimal soil temperatures and moisture levels for T34 Biocontrol application can be monitored using data from the Aranet WET150 Soil Sensor. This ensures growers get the best out of the product by applying it in the right conditions.



### Quantil Ltd: Lavenders

Throughout Autumn and Winter, Quantil Ltd. have been incorporating DCM Vivisol, DCM ECOR 5 and T34 Biocontrol into their Lavendar potting mix.

Colin Holmes, Head of Retail Production and Development at Quantil Ltd. said *“We are extremely pleased with the quality of our Lavendar crop. The plants are exhibiting strong, uniform growth with healthy roots. We have yet to encounter any losses due to root diseases, which are typically problematic within this crop and growing period”*.



### Find out more and place an order today

For more information on holistic root disease management, please contact Sean Whitworth, Fargro's Senior Growing Media and Fertiliser Specialist.

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