Your Levy At Work

Greenlife Industry Australia

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Clean Water, Green Future: New Nursey Project Leading the Way in Water Disinfection

Australia's thriving nursery industry heavily relies on a steady supply of water, making the quality of irrigation water a critical priority.

Much of the water used in production nurseries is sourced from open water systems or is recycled and reused, introducing the risk of diseases spreading through infested irrigation water.

To address this challenge, a diverse range of disinfection systems are employed within the industry but uncertainty surrounds the effectiveness and cost-efficiency of these current and alternative water disinfection practices.

GOOD WATER: GOOD FOR PLANTS, GOOD FOR BUSINESS

The levy funded NSW Department of Primary Industries '*Validating Water Disinfestation Systems in Nursery Production* (NY21002)' project is evaluating and comparing the efficacy of existing irrigation water disinfection methods used in the industry.

Toni Chapman, Senior Research Scientist at the NSW Department of Primary Industries and Project Lead says they are collaborating with growers to assess the performance of their water disinfection systems in real-world conditions.

"The primary aim of the project is to engage with growers and actually test their systems to see if they are actually doing what they are supposed to be doing," said Dr Chapman.

"Water security is integral for plant health because water is one of the primary modes of entry, and once you have some of these pathogens getting into nursery systems, they can be there forever.

"That's bad for plants, and bad for the businesses."

Sophia Callaghan project team member and Plant Pathologist at the NSW Department of Primary Industries, says working directly with growers allows us to analyse the efficiency of these systems in the field.

"We want to be able to collect water samples pre- and post-disinfestation and look at fungal and bacterial growth," said Dr Callaghan.

"The literature tells us about efficiency and what should work, but this project enables us to engage with growers and see what is actually working out in the field."

PINPOINTING WATER INFECTIONS

One of the most significant aspects of NY21002 is the active involvement of industry stakeholders, specifically nursery growers.

Growers can participate in the project by completing a survey that assesses their water disinfection practices.

Beyond this, Dr Chapman says the project offers the opportunity for growers to have their water samples collected and analysed, providing valuable insights into the performance of their systems both for the project, and for their own operations.

Hort Innovation Strategic levy investment | NURSERY FUND

This project has been funded by Hort Innovation using the nursery research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

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“Those nurseries that are close by to us, we're going to go to their farms and collect their samples, while those that are more remote can send them in,” said Dr Chapman.

“We'll collect samples before they go into the water system, after they go in, and at other vital points,

to see how long those systems are holding up for. “

AN OPPORTUNITY FOR GROWERS

Already, the project is giving growers benefits and insight into how to improve their own operations.

“When we first started the project this year, we had a grower that supplied samples for us, and like most projects of this nature, looked primarily at water before it went into the system and after it comes out,” said Dr Chapman.

“The grower’s system had a very complex network where they had town water and dam water and it was sitting in multiple holding tanks and coming out of multiple taps at the end.

“This enabled us to test water at different points along the system and find out where the issues were, allowing them to rectify those issues and now we are about to resample this nursery.

“This grower has benefitted already from involvement in the project, because he had the knowledge to prevent further issues before they arose.”

“The project has also benefited as it highlighted the need to expand on what samples should be collected”.

NEXT STEPS AND HOW TO GET INVOLVED

The project stands as a key initiative in protecting the future of Australia's nursery industry.

By evaluating and improving water disinfection methods, it not only addresses current concerns but also prepares the growers for future challenges.

Once data is collected and processed, it will be fed back to industry, and be used to update the Nursery Industry Accreditation Scheme Australia (NIASA) Guidelines.

The guidelines provide best practice for production nurseries and incorporate new information on water management.

The project is interested in linking up with anyone involved in the industry interested in contributing to the project.

This can be done by filling out a 15 minute survey at https://www.surveymonkey.com/r/MZ69BHK

The project will then get in contact and organise for samples to be collected.

For more information, click here.

ENDS

The ‘*Validating water disinfestation systems in nursery production (NY21002)’* project is funded by Hort Innovation using nursery research and development levy and funds from the Australian Government.

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