MAY 2024

Dear Readers,

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If you are interested in more information about Neutrog, please let us know at marketing@neutrog.com.au to make sure you receive both our monthly newsletters.

The one you're reading now is commercially focused, while we also put together a newsletter dedicated to growing plants at home. Each month we collate seasonal advice from experts, product profiles and garden features with a full insight into Neutrog.

Kind Regards,
The Neutrog Team

New Developments Leading to a Strong Future for Neutrog

At Neutrog, we are ramping up our R&D commitment to global food security, investing $3.5 million in a new research and education facility in regional South Australia.

Neutrog MD, Angus Irwin says, "Research and development is an integral part of our company's DNA."

"We have outgrown our existing laboratory and with the increasing demand we are experiencing from our customers and partners we need to position for the future.

While we're investing in our research capabilities, we also want to help educate the industry and broader community on the latest global developments in microbes and biologicals and their increasing value to agriculture and horticulture."

The new research centre will provide significantly increased scope for standalone and partnership R&D projects and to expand our R&D workforce. It will include a BC2-accredited (biosecurity containment level 2 approved) laboratory, making us the only fertiliser business in Australia to have this accreditation, allowing us to receive and process soils sourced from overseas as well as work with human and animal diseases.

Senior Research Assistant, Juhee Hada said the new facilities would allow Neutrog to continue helping farmers and growers meet their production challenges in the future.

The adjacent 80-seat education centre has been custom designed to meet growing interest from school, tertiary, industry, and community groups. It will include interactive multi-media and hands-on learning options, with planned curriculum to align with society, environment, STEM and VET pathways.

Within the development the existing carpark will be repurposed into diverse greenscape in collaboration with national plant societies and with sensory spaces incorporated for additional hands-on learning options for primary school groups.

The announcement of this exciting development coincides with the purchase of a new piece of land in Langhorne Creek, South Australia.

The purchase was finalised in mid April, with a visit by members of our management team to celebrate including Chief Financial Officer Tony Aloisi, Managing Director Angus Irwin, Manager of Special Projects David Ellis, and Manager People and Culture Alicia Oschmanns.

The new land will house the expansion of area for manure storage, allowing Neutrog to keep up with the high demand for premium fertilisers and biologicals.

Century Almonds Rot (Rhizopus stolonifera) Trial Results 2023

The Neutrog R&D team has been working Century Orchards over a number of seasons to explore how biologicals can be used to improve production – and a specific trial relates to the impact of Hull Rot.

Hull rot is a major disease in the almond industry which has a significant effect on the future productivity of an orchard.

Primarily by the fungi Rhizopus stolonifera almonds are susceptible to infection from the early stages of hull split through to harvest where the fungal spores access the inner surface of the hull. This allows the spores to survive and reproduce by accessing the moisture and nutrients present in the hull. From here the spores can spread and quickly infect other areas of the orchard. Hull rot strikes are the first initial sign of hull rot infection and are caused by the acid by-products produced by the fungus, which are then spread through the vascular system of the tree. This causes spur death and twig dieback referred to as 'hull rot strikes', reducing fruiting wood for the following seasons which ultimately reduces the future productivity of the orchard.

Hull rot is generally most prevalent in orchards that have high fertiliser and water input which allows the fungi to thrive. Therefore, at hull split, growers may implement management controls, such as reducing water, to apply a moderate amount of stress to the orchard. This reduces the moisture in the hull available to the fungi and therefore can assist in lowering the prevalence of hull rot. Alternatively, or in conjunction with these management controls, growers may apply a fungicide (such as Merivon) at the beginning of hull split in an effort to protect the tree and crop.

Another option is the use of Potassium silicate (which has many uses in agriculture) but can also be used is also a natural, non-synthetic fungicide. When applied as a foliar spray, the potassium silicate, enters the plant between the epidermal cell layer, creating a silicon matrix and forming a physical protective barrier. This barrier protects the tree from fungal infection by numerous pathogens.

Century Almonds ran a trial in 2021-2022 testing the efficacy of Potassium Silicate for hull rot suppression. In the 2022-2023 season, a more extensive trial was undertaken to assess a range of different products including potassium silicate and Neutrog's biological inhibitor, POPUL8. The trial consisted of five blocks:

- A 'control', sprayed with fungicide (Merivon), to follow the orchard standard for the season.
- Potassium silicate only.
- A combination of Merivon and potassium silicate.
- Potassium silicate and Neutrog's biological hull rot inhibitor.
- A singular application of Neutrog's biological hull rot inhibitor

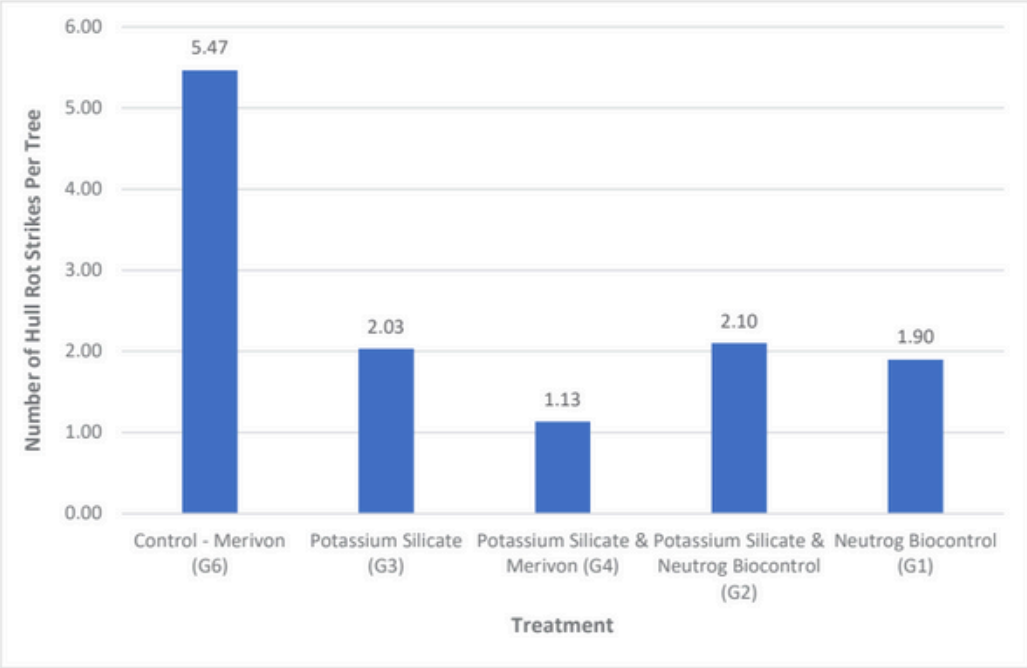

Figure 2. Effect of potassium silicate and Neutrog's Hull Rot Biocontrol product on the number of hull rot strikes per tree compared to the Merivon orchard control.

Results of this trial have shown that potassium silicate, when applied in conjunction with Merivon, is the most effective in significantly reducing the number of hull rot strikes per tree when compared to applying only Merivon, which is standard practice in the orchard. However, the trial also showed that Neutrog's biological inhibitor POPUL8 was the second most effective.

The effect on yield will not be observed until the 2023-2024 season.

The Neutrog R&D team are looking forward to continuing to work with the Century Orchard team.

Flavour Trials Results on Yield

Pot trials underway with Adelaide Botanic Gardens on the development of SALIV8 continue, but this month we saw an unexpected result, in yield - remembering that the SALIV8 trial is about microbes that positively influence flavour.

As this photo demonstrates, the plants treated with SALIV8, have grown not only more fruit, but also more consistent well-formed fruit. We look forward to giving more news on the results of the taste tests, next month.

Barossa Valley Estate

As a defining winery in South Australia's Barossa Valley region, Barossa Valley Estate captures the unique characteristics of Australian warm climate viticulture while offering its guests the chance to wander through Australia's largest perennial garden designed by Paul Bangay.

Together the vineyard, gardens and surrounding lawn areas create an experience to be enjoyed in every season, and to keep them looking their best year-round, they focus on inputs that ultimately benefit soil biology and root health.

Keeping the couch turf green and lush is paramount at Barossa Valley Estate, where lawns are maintained much like a putting green to manage high foot traffic, particularly during the height of Barossa Valley's tourism season which can see up to 200 people visit the cellar door each day.

Regular mows twice per week with a cylinder lawnmower (or automatic lawnmowers affectionately named Romeo and Juliet for the areas adjoining the vineyards) and a yearly renovation combined with applications of Sudden Impact for Lawns + POPUL8 Advanced Biological Formula have formed the basis of their turf management program.

Since using Sudden Impact for Lawns + POPUL8, the team have reported that it works as the name suggests - with a sudden impact. "Other products do a similar job, but if you're looking for an instant green up, Sudden Impact for Lawns delivers."

Along with turf improvements, the perennial gardens are also flourishing after being mulched with Whoflungdung which was specifically chosen for its composting process which rids the mulch of any bad bacteria, resulting in a safe, disease and weed-seed free mulch.

"Whoflungdung has the ability to improve soil at the same time as acting as a mulch by suppressing weeds, and it looks good as well. Whoflungdung doesn't set hard, and really gives a nice lift to the place when you walk in."

Westringia topiary balls have also been treated with POPUL8 to unlock nutrients and improve plant resilience. We look forward to sharing more as this progresses.

We'd like to thank Alistair, Donna, and Michael from Barossa Valley Estate for taking the time to show Neutrog's Commercial Manager, Emily and Commercial Customer Sales Representative, Natasha around the gardens.

Increased Yield with Bush Tucker at Sugar Bloom Farm

Taking over an established farm can come with challenges, and as Alecs and John from Sugar Bloom Farms have found out, just a few small changes can have a big effect on yield.

After taking over an established Australian and South African native flower farm a couple of years ago in South Australia's Encounter Bay, Alecs and John found themselves managing land that had previously been maintained with low water and chemical based principles.

"It had been operating for 20 years with a lot of poison, synthetic fertilisers, and low water consumption. The flowers were quite short of stem and low in numbers. Too many flowers were not market grade. We have the production books from every historical year, so we are able to precisely monitor changes in output."

Improving the health of the farm started with the removal of poisons, and all plants have been irrigated to help them cope with the dry summer.

Bush Tucker was applied to each of the plants, providing a complete range of essential nutrients for root development and strong growth - and it didn't take long for them to see significant results.

"Our little flower farm has doubled flower production from the same number of plants in only one year. Stem length has also increased considerably," says Alecs.

On a recent visit, Neutrog's Commercial Sales Representative noted that yield records made last season by the previous owners indicated a harvest of 900 stems. After a single application of Bush Tucker, Alecs and John have increased their yield to 1900 stems.

"We will continue to use your products in the best interests of our plants, the environment, and our bottom line," says Alecs.

Contact us

For more information about Neutrog products, please contact our team.

Neutrog products are also suitable for the home garden, and you can find out more by signing up to receive our monthly retail newsletter for stories from gardening experts, product profiles and seasonal fertilising guides for home gardens.

If you would like to receive this newsletter, please email marketing@neutrog.com.au

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