

H&T and BioConsortia to reduce synthetic nitrogen use in New Zealand

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Hodder and Taylors Ltd (H&T), a seed company based in New Zealand, and BioConsortia, Inc., a California based leader in agricultural technology, has entered into a commercial agreement to enhance crop productivity and reduce agriculture's environmental impact with advanced microbes.

Combining cutting-edge discovery and advanced gene-editing capabilities, BioConsortia's platform represents a breakthrough in microbial seed and fertiliser treatments. The collaboration between BioConsortia and H&T marks a significant step forward in sustainable agriculture, providing New Zealand farmers with tools to achieve higher productivity and reduced environmental impact.

H&T, known for improving crop and forage systems on New Zealand farms, will introduce BioConsortia's AlwaysN microbial seed treatment during the 2025 season. This innovative seed treatment will be available for maize, cereals, brassicas and pasture seed, helping growers reduce nitrogen losses and environmental impact while maintaining yield.

Since 2023, BioConsortia and H&T have conducted successful field trials in New Zealand, demonstrating nitrogen-replacement results consistent with earlier trials conducted since 2021 in the U.S., Canada, Brazil, and Europe.

Paul Oliver, H&T Managing Director, stated, "This technology offers a new opportunity to reduce nitrogen fertiliser use in New Zealand agriculture, delivering both economic and environmental benefits while maintaining crop performance."

Marcus Meadows-Smith, CEO of BioConsortia, added, "Our proprietary microbes effectively colonise crop roots, ensuring there is always nitrogen available to influence crop yield. These microbes remain active in the root zone throughout the growing season, converting atmospheric nitrogen into plant-accessible forms even after synthetic fertilisers dissipate."

Setting a New Standard for Shelf Stability and Seed Life

BioConsortia's nitrogen-fixing seed treatments boast a shelf life exceeding two years and maintain on-seed stability for an additional two years, far surpassing industry norms.

"Our use of Gram-positive microbes, known for their inherent stability and reliability as root colonisers, underpins this breakthrough," explained Dr. Hong Zhu, Senior VP of R&D at BioConsortia. "Through our proprietary R&D platform, we've unlocked the nitrogen-fixing potential of these microbes, creating ideal candidates for seed treatment products."

Revolutionary Microbial Discovery Engine

BioConsortia's flexible microbe discovery platform played a pivotal role in this innovation. Given New Zealand's regulatory restrictions on gene-edited organisms, BioConsortia identified wild-type microbes from its extensive library that naturally fix nitrogen. These microbes, with intrinsic genetic traits enabling nitrogen fixation, deliver reliable yield performance.

"Our seed-applied products offer unmatched ease of use for growers, ensuring strong yields without relying on increased synthetic nitrogen," said Meadows-Smith.

H&T is a New Zealand seed company that specialises in developing new seed technologies to improve productive and environmental outcomes. H&T supplies seed and crop management solutions to farmers with a focus on pasture, forage, maize and arable crops.