

MEDIA RELEASE

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INNOVATIVE FERTILISERS FOR THE FUTURE

A growing interest in alternatives to fertilisers is underway due to the rising costs of traditional fertilisers, disruptions in supply chains because of COVID-19 and global conflicts, and a welcomed focus on soil health. Inhibitors technologies which can minimise gaseous and leaching losses from existing nitrogen fertilisers and biofertilisers, made with sterilised and dried organic waste materials from poultry sheds, are just some of the options being developed by industry.

Dr Roya Khalil, business leader and R&D and innovation specialist at Incitec Pivot Fertilisers will be discussing fertiliser solutions at the Crawford Fund's international conference - Australia's key food security event - *Global Food Security in a Riskier World* being held in Canberra, 4-5 September. The conference keynote will be presented by **Dr Cary Fowler**, the US Special Envoy on Food Security.

"Agriculture plays a pivotal role in nourishing the expanding global population, and fertilisers are very important in meeting this escalating demand. However, the trajectory of fertilisers is shifting towards sustainable alternatives. Researchers and industries are dedicated to meeting customer expectations and formulating fertilisers that exhibit precision targeting, slow release, and environmental compatibility," said Dr Khalil, who contributes to the innovative ARC Research Hub for Smart Fertilisers.

"Investment in circular economy and green technologies, including biofertilisers, is essential for a sustainable future and a reduced carbon footprint. This includes recycling organic waste into nutrient-rich fertilisers, producing green hydrogen as a clean energy source and green ammonia as a fertiliser, and adopting renewable energy solutions.

"To reduce environmental impacts, the industry must not only focus on education around optimal fertiliser use practices, but leverage nitrogen inhibitor technologies. These technologies can maintain crop yield or decrease the required fertiliser application rates as well as effectively minimising nitrogen losses by reducing the emission of nitrous oxide and ammonia into the atmosphere.

"While sustainable technologies and practices are promising, there are economic and infrastructure challenges. Initial implementation costs and necessary infrastructure for technologies like green hydrogen production and waste recycling require significant investment.

"Governments, industries, and organisations need to collaborate to provide incentives that encourage the manufacturing and adoption of innovative fertilisers and practices," she concluded.

The Fund's annual conference will bring together international and Australian specialists to address the grand challenge presented by the need to produce more nutritious food, sustainably, in a riskier and more uncertain world.

Other speakers include **Dr Cary Fowler**, the US Special Envoy on Food Security, **Em Prof Kym Anderson AC**, renowned trade economist and winner of the Crawford Fund medal, **Professor Wendy Umberger**, CEO, The Australian Centre for International Agricultural Research; **Ben Fargher**, Environmental Markets Lead, Cargill Asia Pacific, and **Dr Warren T K Lee**, Senior Nutrition & Food Systems Officer, UN FAO.

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