

Small Grain welcomes back specialist in crop protection

The Agricultural Research Council-Small Grain has welcomed back a familiar face to its campus, with Dr Tshimangadzo “Tshima” Ramakuwela returning to the organisation as the Research Team Manager: Crop Protection.

Anelisa Gusha
ARC-SMALL GRAIN

The Agricultural Research Council-Small Grain has welcomed back a familiar face to its campus, with Dr Tshimangadzo “Tshima” Ramakuwela returning to the organisation as the Research Team Manager: Crop Protection.

Her return marks an important moment for the ARC, bringing together institutional knowledge, scientific expertise and leadership experience. Prior to her appointment, Dr Ramakuwela served as a lecturer in the department of plant and soil sciences at the University of Pretoria.

However, her journey with the ARC began much earlier, where she previously worked as a researcher at the organisation.

Dr Ramakuwela’s research specialisation lies in the biological control of insect pests and plant pathogens using entomopathogenic nematodes (EPNs) and their symbiotic bacteria. This is a rare and highly specialised field.

This multidisciplinary work draws on nematology, entomology, plant pathology, and biotechnology and directly supports reduced reliance on chemical pesticides while strengthening integrated pest management systems in agriculture.

One of her most significant research

contributions has been in wheat disease management, particularly fusarium head blight (FHB). FHB is a devastating floral disease of cereals that poses serious health risks by contaminating grain with harmful mycotoxins.

In her current role at the ARC, Dr Ramakuwela leads crop protection research programmes across plant pathology, entomology, and weed science. Her work involves not only advancing scientific research, but also ensuring that outputs are practical, relevant and responsive to the needs of producers.

“My research is driven by the need for safe, environmentally friendly pest management alternatives,” she explains. “With growing pesticide resistance, environmental concerns and food safety challenges, sustainable agricultural practices are more important than ever.”

On a personal level, her drive stems from a love for learning, exploration, and challenge, these are qualities reflected in both her career and her personal pursuits. An avid hiker, she has completed demanding trails such as the 116 km Moshoeshoe walk in Lesotho and the Fish River Canyon in Namibia.

Originally from Venda in Limpopo, Dr Ramakuwela’s passion for agriculture began at a young age, growing up in a village where farming was an integral part



Dr Tshimangadzo
“Tshima” Ramakuwela.

of daily life.

She holds a PhD in Plant Pathology from the University of KwaZulu-Natal, complemented by a BTech and National Diploma in Biotechnology from The Vaal University of Technology, as well as qualifications in Total Quality Management and Leadership Development for Middle Managers. Her professional development also includes prestigious international training programmes such as the Borlaug International Agricultural Science and Technology Fellowship Programme, as well as specialised training in integrated pest management and food safety.

Reflecting on her time in the industry which began in 2006 as a research technician at Small Grain and progressed to a researcher role in 2015, Dr Ramakuwela said adaptability and collaboration were key lessons for her.

“Research doesn’t always provide immediate answers, but persistence, critical thinking and collaboration are what turn science into meaningful impact for farmers,” she said. 🌱

Koringforum kry die groen lig vir Artikel 7-ondersoek

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produksie en in die res van die waardeketting ‘n groter rol te kan speel.

Wes-Kaapse produksie

Prof Jooste sê koringproduksie in veral die Wes-Kaap is onder ernstige druk en dit beïnvloed die toekoms van die bedryf en van betrokkenes in baie opsigte. In groot dele van die Wes-Kaap is die koringbedryf die ruggraat van landelike ekono-

mieë. Baie meganismes ter verbetering van die situasie is reeds in werking gestel en word ontwikkel, soos die verbouing van kanola, alternatiewe bewerkingsmetodes soos bewaringslandbou en ‘n verhoogde veekomponent in boerderie.

Dit is volgens hom ‘n ingewikkelde situasie. Producenten moet volhoubaar kan boer en wanneer hulle nie geld maak nie en die alternatiewe is uitgeput, beïnvloed dit die hele waardeketting. 🌱