

# ARC conference highlights innovative SA agricultural research

By Magda du Toit | 13 February 2024 | 9:11 am

*Opening the Agricultural Research Council (ARC) and the Department of Agriculture, Land Reform and Rural Development's (DALRRD) joint conference that was held recently at the ARC Roodeplaat, agriculture minister Thoko Didiza said that this event was celebrating and showcasing the innovative work of researchers at the ARC and government.*



A screenshot of Minister of Agriculture, Land Reform and Rural Development Thoko Didiza speaking at the ARC conference.

*Photo: ARC/YouTube*

“This conference, hosted under the name ‘Science transforming food systems for a better future’, recognises the importance of science and research in improving food security, food safety, food nutrition and production efficiency,” she said.

She affirmed government's commitment to promoting and supporting research and development in the country according to the Agriculture and Agro-processing Master Plan. "We want to grow the agriculture sector in an inclusive manner underpinned by cutting-edge research and innovation."

Worldwide food systems needed to be transformed to provide food in an environmentally sustainable, cost-effective and socially just manner, she stressed.

"Climate change, global conflicts, food waste, and the constant detection of new pests and diseases are threatening the manner in which we have been producing, storing and distributing our food over time."

Didiza stressed the importance of collaboration and partnership in research, and said it was important for such collaboration to extend to academia, the industry and other institutions to ensure that the knowledge that was generated could be shared amongst all farmers, from subsistence to commercial.

"Research and development will help generate technologies and produce high-yielding, nutrient-dense, drought-tolerant crop varieties and animal breeds that can increase production using less or the same land and inputs," the minister said.

She pointed out that research and development could also help to build modern and functional early-detection tools for pests and diseases, thereby helping producers to manage their spread and cost to the agriculture and food sectors.

In her address, Didiza highlighted some areas that needed further research:

- Climate-smart agriculture, as it will increasingly have an impact on the sector's sustainability and competitiveness in the future.
- The impact of climate change in a transitioning economy.
- Carbon emissions.
- The efficiency of the total agricultural value chain.
- Animal production and the challenges facing this particular sector.

She pointed out that although the animal production industry was contributing more than 40% to the gross production value of the agriculture sector in South Africa, there were still many challenges facing the industry, such as the genetic inferiority of some animals, particularly those owned by small-holder farmers.

According to her, as a science-based solution, the ARC's Kaonafatso ya Dikgomo Animal Improvement Scheme has assisted farmers to improve their animals' genetics and condition.

"This has helped farmers improve their income. About 4 637 farmers have been supported in this programme and a further 5 000 farmers will be assisted in the current financial year," she said.

Didiza emphasised that it was not only animal production that benefitted from collaborative research but also crops.

"New varieties of fruits, grains and vegetables are being developed to stabilise food production and ensure resilience to drought and heat tolerance. Some of these crops are indigenous, such as *thepe* (marog), *amadumbe* (African potato), cowpeas, sorghum and marula," she said.

She also shared the news that the ARC and the DALLRD were establishing the Centre of Excellence on Climate Smart Agriculture at the Roodeplaat research campus of the ARC.

"This centre will advance research, innovation and knowledge dissemination in the field of climate-smart agriculture, and bring together experts, practitioners and stakeholders from various disciplines."