

Technology to play a key role in global food security

Technology will increasingly play an important role in agricultural food production as the world races to ensure that food supply will be able to meet growing demand in the future.



Image by 123RF

This is according to Absa's senior agricultural economists, Ernst Janovsky and Wessel Lemmer, who spoke at the Absa Agribusiness roundtable in Centurion, South Africa, this week. Themed 'Agricultural competitiveness after Big Data', the roundtable will focus on the role technology will play in global food production as well as the competitiveness of the sector in coming years.

Their comments come amid erratic weather patterns, such as the recent drought, as well as volatility in agricultural commodities markets, which have again brought the issue of global food security under the spotlight.

These factors have raised concerns about the planet's ability to feed its population of more than 7 billion. This figure is expected to reach nearly 10 billion by 2050, with most of this growth expected to come from developing countries.

"Naturally this growing population will create more demand for food, water and land. Per capita food consumption is projected to increase significantly, particularly in densely populated areas of the world, such as Asia. At the same time, climate change, including extreme dry conditions and devastating floods, is expected to put many more people at risk of hunger in the future," say the economists.

However, Janovsky and Lemmer argue that the adoption of new technologies should mitigate some of the food security risks, noting that recent technological advances in agriculture were already improving agricultural productivity of known commodities.

“It is expected that future developers will be focusing on multipliers – production of food by more efficient microbes. Commodities and inputs as we know them now are increasingly being produced ever more efficiently. Producers that will benefit are those that will capitalise on the alternative production of food with the support of technological developments,” they say.

“Today we have new technologies that capture big data, which already plays a part in improving the productivity of our farms. Think of precision tillage optimising fertilisation and pest control in fields and orchards, the selection of animal with superior genetics.”

Janovsky and Lemmer predict a number of new trends in food production, including: urban vertical farming, with production being done more through the sharing of information; drones being used widely to support production; as well as an increase use of existing technology that will save costs and improve incomes.

They suggest that for farmers to remain competitive, they should be prepared for technological developments in the age of big data. “It may cost local farmers their competitiveness, if they do not adapt early enough to a new line of competitors. To survive, farmers need to be new era producers.”

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