

Water scarcity drives a new wave of practices in Cape Winelands

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8 Aug 2017

The [practice of cultivating](#) grasses such as wheat, nearly 10,000 years ago, laid the foundations of today's large urbanised communities. And strangely enough, traditional farming practices as we know today have not changed that much during this age.



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It is only in the past century that we have seen significant leaps in agriculture, as the challenge of feeding a global population confronted producers. Machinery, irrigation, road and rail infrastructure, markets, and seed modification are just some examples of technology that have revolutionised crop output in this time.

Water scarcity

In the last two decades, [South Africa has lost close to 30% of its farmlands](#) due to water scarcity. Recently, the Western Cape has seen the worst drought to hit the region in the last century. Deciduous fruit growers in the province feel increased pressure to conserve water as rainfall becomes less predictable and other industries demand a greater share of piped water. This means that farmers face the challenge of producing more fruit, while reducing the impact they have of the province's water supply.

The Western Cape Agricultural Department has decided to fund the development of an open web portal, called [FruitLook](#). This application grants farmer's access to satellite-based information catered to their location, crop, water usage, and a multitude of other factors. The software also provides detailed weekly updates on actual evapotranspiration, biomass production and leaf nitrogen content.

Statistics released by SA Wine Industry and Systems, showed that 300,000 jobs relied on the wine industry in South Africa, and contributed R36bn to the nation's GDP in 2016. However, factors such as water scarcity and competitive global markets has had its affects, [whittling away 900 producers](#) in the past decade.

The Department has now made FruitLook free-to-use for farmers in the region, meaning meteorological data, satellite imagery and available local data that provide near real-time information on crop health, give farmers greater security and

control of their businesses. Stress areas such as water, soil and disease, can then be investigated further to determine what solutions farmers can implement to mitigate production loss.

Technology disruption

Mobile technology is aiding in far more than physical data. Farmers in rural areas on the continent are increasingly using mobile solutions to source buyers, other traders that allow for better leveraging, and the best prices possible for their produce, using platforms such as [Agrista](#), of which Absa is a partner.

Simple changes in practices can result in better efficiencies, reduced impact on the environment, and farmland less prone to climatic changes, all of which have a positive influence on production yields. There is much room for development to harness the potential of agriculture in young people's lives, by improving financial literacy, building technology and innovation skills and creating a new breed of policymakers in order to see the implementation of better policies.

The South African wine industry and agricultural sector as a whole, has shifted towards a more intensified production system. This shift from the traditional sense of farming has included increased irrigation, fuel, mechanisation, use of genetically modified seed and fertiliser inputs. In coping with increasing populations, and our fragile ecosystem experiencing more frequent droughts, modern technologies will continue to impact on farming methods we have traditionally come to know.

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