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Harvest SA

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Mining and agriculture can complement each other sustainably



On the cover

The John Deere C120 Combine Harvester is a cost-effective multi-grain combine harvester ideal for farmers with smaller fields. The combine is fully hydrostatic and equipped with a John Deere 4.5-litre engine delivering 121 Kw with optional four-wheel-drive capability. It also features Cylinder Tine Separator Technology (CTS) maximising threshing capacity and superior grain quality. Additional features include a 4200-litre grain tank and an operator-friendly cab. Front-end equipment includes a 15ft and 18ft cutting platform as well as a four-row maize header.

Editor	Greg Penfold
Art Director	Brent Meder
Layout & Design	Monique Petersen
Project Manager	Terrence Damster
Advertising Executives	Wendy Bresler, Gordon Campbell, Roger B. Buchanan
Distribution Manager	Edward MacDonald
Circulation	Lee-Ann Lawrence
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Client Liaison	Phumza Mbodlana
Accountant	Chevonne Ismail
Accounts Department	Brigitte Eberbach
Debtors Department	Nadeema Abdullah
Managing Director	Robert Arendse, robert@capemedia.co.za
Financial Director	Andrew Brading, andrewb@capemedia.co.za
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28 Main Road Rondebosch 7700 • Tel: 021 681 7000 • Fax: 021 685 4448

E-mail: info@capemedia.co.za
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Fore word

Mechanisation and technology transforming South African farming



*Stephan Nel, Marketing Manager,
John Deere Sub-Saharan Africa*

South African farmers face unfavourable and increasingly unpredictable climatic conditions, unrelenting cost-price pressures, market volatility and policy uncertainty. Despite these challenges the country's farmers continue to meet the food demands of an ever-growing population, running complex businesses that also compete successfully in highly competitive global markets. As the number of successful large-scale commercial farmers declines in the country, South Africa is, however, challenged to build a more inclusive agricultural economy capable of adding more farmers and greater yield – while also successfully accessing global markets, investment and technology.

In this context, John Deere is both encouraged and excited by the genesis of the Agricultural Development Agency.

Launching at this year's Africa Agri Tech Exhibition and Conference, it is our hope that this important and timely agency can align the various role players required to build an expanded, more inclusive, agricultural value chain in South Africa – capable of accessing global agricultural investment and supply value chains while also playing a significant role in transformation and social development at home. As world leaders in agricultural innovation and a rich history of

more than 178 years in South Africa, John Deere is working tirelessly to drive Africa's green revolution, increasing yields through technology and insight, and bringing more land into commercial agricultural production.

In this endeavour, we believe that the adoption of technology is key to enabling farmers to become more precise, more sustainable, more connected and more resilient in the production of competitively priced food for local and global markets.

To this end, the impact of artificial intelligence for individual farmers, large and small, measured in increased yields, dramatically reduced costs, and ultimately higher incomes per hectare, is set to redefine what is considered possible in South Africa's agricultural sector.

John Deere has developed models that support large scale farming operations optimise their businesses through state-of-the-art technologies such as artificial intelligence and automation.

Key in this is the gathering and management of data, enabling farmers to make better and faster decisions.

To this end, John Deere has developed an innovative private permission-based platform enabling qualified agricultural services and technology companies to blend their data with individual farmers' own data and insights. Called *More Tools*, this platform harnesses the power of artificial intelligence to conceive and deliver tailored insights and

solutions remotely for each farm, field and even plant.

For South Africa's critically important smaller scale and emerging farmer segment, John Deere has developed SMART, a farmer-support ecosystem leveraging mechanisation to increase yield and earnings.

In short, SMART provides bespoke equipment solutions supporting the broader adoption of mechanisation. Enabled by finance solutions and supported through a dedicated dealer network and aftersales services, SMART also provides tailored technology solutions and on-going education, insights and support.

Even on older, smaller or less advanced equipment, capturing and managing data is, today, critical to planning, decision-making and optimal machine use. To this end, John Deere has developed cost-effective, bolt-on frugal technology solutions that enable emerging and smaller scale farmers leverage artificial intelligence to improve yields, access commercial markets and increase income. This technology is playing an important role in assisting small holder and emerging farmers access South Africa's main-stream commercial economy.

The ability to blend data from each farmer's operational and supplier universe is, for the first time, unleashing the power of artificial intelligence on South African farms. John Deere is excited to showcase some of these solutions at the upcoming *Africa Agri Tech*

Exhibition and Conference. We also believe the conference can become an important platform to align South Africa's agricultural players around the critical task of growth-driven transformation and broader inclusion in South Africa's agricultural economy.

At John Deere, we believe that every farmer, big and small, has a role to play. Working together we can harness the power of the collective – including farmers, industries, governments, and communities – to

achieve food self-sufficiency in Africa while also positioning the continent as a key global agricultural player.

Realising this vision means unlocking the potential of every person in Africa's agricultural value chain – to be greater than they are today.

At John Deere we believe in greater.

Stephan Nel, Marketing Manager, John Deere Sub-Saharan Africa



Agriculture first



GREG PENFOLD
greg@capemedia.co.za

In a recent speech, African Development Bank President Akinwumi Adesina emphasised the importance of agriculture and agribusiness. "Agriculture is the most important profession and business in the world. The size of food and agriculture in Africa will rise to \$1 trillion by 2030. The population of Africa, now at 1.2 billion, will double to 2.5 billion by 2050. They all must eat. And only through food and agribusiness can this be achieved."

Adesina further urged agricultural universities to optimize their role in linking research, innovations and technologies to farmers and the food and agriculture industry.

Few would disagree with this assessment. For this reason, the highly anticipated launch of the Agriculture Development Agency (AGDA) at the Africa Agri Tech Conference and Expo (AAT) comes as very welcome news indeed. The main objectives of the Agency, according to an AAT statement, "are to promote and support access to agricultural land by emerging farmers, and to support the use of agricultural land and infrastructure development so as to promote land reform and food security in the country". In pursuit of these goals, AGDA also intends "to ensure the provision of appropriate training, as well as support and assistance to emerging farmers to improve capacity and access to agricultural markets in particular".

"It is only through the pursuit of such objectives in partnership with government, focussing on a more vigorous pursuit of the noble objectives the national land reform programme, that the market failures and imperfections in building an inclusive, dynamic and competitive agricultural sector, to enable all our people who have ambitions to work in agriculture can be achieved," Meyer is quoted as saying.

In this perspective, it is heartening to learn that the initiatives of many private-sector companies and organisations specifically geared to advance the development of new-era farmers are bearing fruit. John Deere, SAB, Potatoes SA and more are demonstrating the right kind of leadership with programmes that resonate with the essence of AGDA's mission.

Success stories of this nature show that "an inclusive, dynamic and competitive agricultural sector" is not just a collection of pleasing words but a viable future that will become reality if agriculture pulls together as a whole.

Potatoes SA 2020 Highlight of Events

30 Jan	Seed Potato Growers' Meeting (Eastern Region)
6 Feb	Seed Potato Growers' Meeting (Southern Region)
11 Feb	ED Farmers Meeting Mthatha (South Eastern District)
12 Feb	Transformation Technical Committee (PMB)
13 Feb	ED Farmers Meeting KZN (Eastern District)
19 Feb	ED Farmers Meeting Cape Town (Southern District)
26 Feb	Cedara Farmers Day
4 Mar	ED Farmers Meeting (Central District)
5 Mar	Eastern Free State Information Day
10 Mar	Transformation Committee
14 Apr	Seed Potato Growers' Committee (Western Region)
7 May	Mthatha Harvest Day
12 May	Bizana Harvest Day (KZN)
12-15 May	NAMPO

19 May	NUMPRO
27 May	Seed Potato Growers' Committee (Northern Region)
3 Jun	Farmer Induction, St George's Hotel
4 Jun	Transformation Symposium
17 Jun	Transformation Technical Committee (PMB)
15 – 17 Jul	AgBiz Conference
23 Jul	ED Farmers Meeting (Eastern District)
29 July	ED Farmers Meeting (Southern District)
4 – 5 Aug	Research Symposium, Club Mykonos
12 Aug	PIDT: Bursary Committee
13 Aug	ED Farmers Meeting (South Eastern District)
20 Aug	ED Farmers Meeting (Central District)
29 Sep	Transformation Committee Meeting

For complete calendar visit <https://www.potatoes.co.za/explore/calendar/>

Transformation Symposium: 4 June 2020

"Towards Sustainability and Commercialisation of New Era Farmers – Embracing the future"

Saint George's Hotel and Conference Centre, 58 Goede Hoop Ave, Doornkloof, Pretoria, 0132

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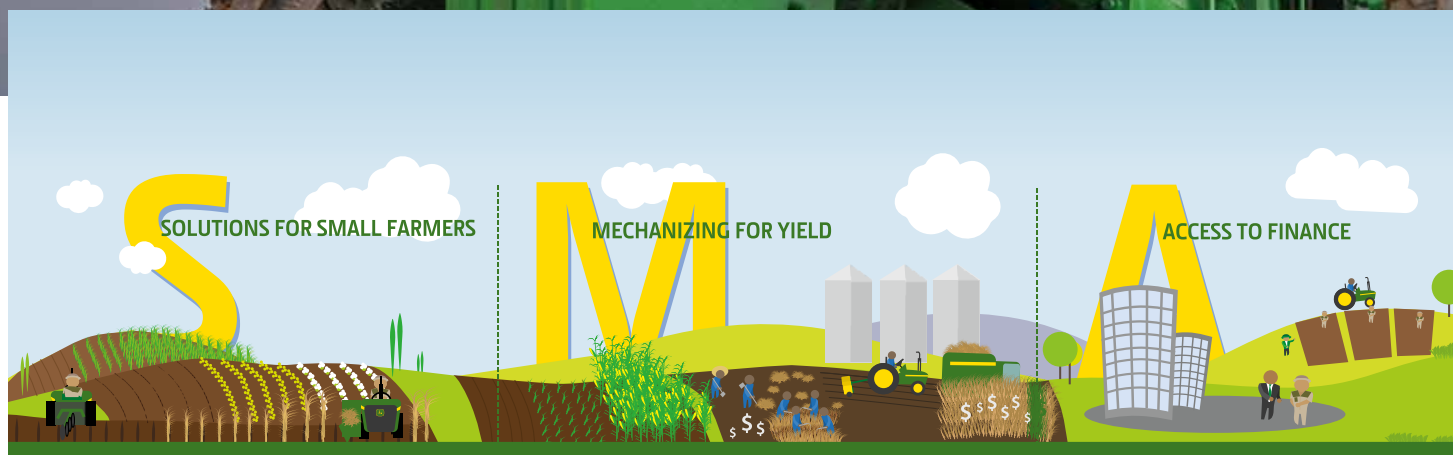
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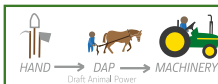
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John Deere is committed to driving Africa's green revolution by supporting those linked to the land with the technology and insight to increase yield, building a sustainable, inclusive and globally-competitive agricultural sector across the value chain on the continent.

Agriculture is the foundation of most developing economies, providing shelter and independent livelihoods to large populations of otherwise economically marginalised people. Africa has millions of rural people who currently struggle to subsist on the land. Very few of these make any meaningful contribution to marketable agricultural production. To increase yield and secure a sustainable future, Africa needs to build a more inclusive agricultural sector, structured in a way that also ensures the flow of capital and expertise to the continent's small-scale farmers while providing much-needed market access.

Only through broadening inclusion in productive farming will Africa build a healthy agricultural sector capable of including millions more in contributing to the continent's GDP, building food security, deepening

beneficiation, reducing the social welfare burden and driving job creation.

Fortunately, new technologies and insights mean that the continent is finally at the point where Africa's vast, as-yet-unrealised, agricultural opportunity can be made relevant to capital, mechanisation and new global markets

Enabling Africa's green revolution is the first step in a broader transformation process aimed at securing the investment, growth and economic inclusion of all Africans by placing the continent at the heart of tomorrow's global food production and consumption chains.

As the global leader in agricultural technology, practice and insight, John Deere is equipping Africa with the tools to increase the yields and drive the exports that will secure Africa's future.

One of the initiatives realising the potential of Africa's small-scale farmers is the John Deere S.M.A.R.T programme. Standing for; Solutions for farmers, Mechanisation for yield, Access to finance, Reliability for lower costs, and Technology and Training, the programme has been successfully piloted across the continent. S.M.A.R.T provides a

proven route for small-scale farmers to mechanise, improve yields and achieve long-term sustainability.

Various studies have proved the effectiveness of mechanisation schemes in Africa. Most findings report that the "tractor service provider" or "contractor" model is the most effective method of empowering small-scale farmers with the mechanisation to improve yields and achieve long-term sustainability.

The John Deere C120 combine harvester, for example, is a mechanised harvesting solution specifically developed for the continent's smaller farmers. The C120 allows farmers to harvest quickly and on time for market while reducing the volume and quality loss that traditionally compromises the value and availability small-scale yields.

The S.M.A.R.T. programme provides Africa's small-scale farmers access to flexible and affordable financial solutions for the purchase of relevant John Deere equipment through John Deere Financial. John Deere Financial (JDF) is Deere & Company's financial services business, supporting John Deere customers to access flexible and affordable finance for the purchase of John Deere equipment. In Africa, JDF has successfully developed best-in-class financial solutions that meet the varied needs of customers in several sub-Saharan countries.

The S.M.A.R.T programme also ensures that farmers reap the full productivity benefits of John Deere finance, machines, technology and insight – by directly supporting farmers via a network of 144 John Deere dealers across Africa. These dealers provide individual farmers on the ground with the necessary technical, operational and after-market support for every piece of John Deere equipment sold.

Finally, the S.M.A.R.T. programme also provides governments and agricultural and economic development agencies the insight and tools to increase productivity and profitability in a sustainable way. John Deere uses S.M.A.R.T. to collaborate with governments and other key stakeholders across Africa, building food security, alleviating poverty and boosting economic growth for all.

The Internet of Things (IoT), machine learning and artificial intelligence are, today, integral to modern agriculture. As a technology-first organisation, John Deere believes



that digital technology has the potential to leap-frog African agriculture to a higher level of productivity and greater integration into global agricultural value chains. To this end, the John Deere S.M.A.R.T. programme also supplies tractors with telematic devices, equipping African farmers to track the activities of tractors, prevent fraud and manage service quality, improve maintenance, manage services remotely, improve fleet management and finance fleet growth.

Collectively, all these elements position S.M.A.R.T to revolutionise Africa's agrarian sector and wider value chain. The strategic deployment of technology through S.M.A.R.T is proven to create jobs while driving the broader investment and growth key to addressing poverty and placing economies on higher productivity and growth paths.

In South Africa, the vibrant and growing emerging farmer segment is a critical market for John Deere, especially for basic mechanisation and other new yield-enhancing technologies and insights.

Guided by the John Deere brand strategy focused on the value of the collective, John Deere has identified a range of successful small-scale farmer development projects across South Africa that provide compelling blueprints for the successful transformation of South Africa's agricultural economy.

The big learning for the current conversation on land is that if South Africa's existing commercial agricultural sector can partner with government to empower individual emerging farmers on a case-by-case basis, South Africa can build a winning agricultural economy relevant to global investment. This



has the potential to include millions more South Africans in the supply of agricultural produce key global growth markets.

John Deere's own experience in successful transformation in South Africa began in 2017, supporting four emerging grain farmers in Taung in North West to place 80 hectares of their government-granted land under irrigation. Working with Anglo American, who co-opted retired commercial farmers as advisors on the project, John Deere Sub-Saharan Africa provided two combine harvesters while John Deere Financial structured a grant of, originally, R 100 000. The programme was also supported, on the ground, by the local John Deere dealership, Senwes. In addition, Senwes assisted with silo and storage infrastructure while Farmwize came on board with marketing and sales. Today, after just three years, the project covers 700 hectares and includes 57 emerging farmers, all producing profitably for the commercial market.

This project demonstrates that genuinely empowering emerging farmers in South Africa requires the private sector and the broad agricultural value chain to come together to make transformation commercially sustainable.

Given agriculture's much lower barriers to entry, farming also offers Africa far greater potential to broaden economic inclusion compared with, say, hard-currency-intensive mines, which only employ a small percentage of the population for a short time.

Since agriculture, properly managed and scientifically conducted, is more sustainable, the sector has the potential to produce food indefinitely. This offers Africa's mineral export-dependent economies the opportunity to diversify into much more sustainable exports with a far higher potential for beneficiation, industrialisation and economic inclusion.

This is all taking place in a global context in which, over time, the value of agricultural goods, especially food, is likely to increase relative to industrial products.

African policy-makers struggling to replicate the industrially-driven growth successes of many post-World War II developing economies would do well to re-consider the vast export and development potential presented by agriculture in a food-scare and largely already industrialised world.

John Deere believes that collectively we can unlock Africa's agriculture potential, achieve food security, beat poverty and place the entire continent on a higher growth path, ensuring the future of all.

Believe in Greater!



THE JOHN DEERE C120 COMBINE HARVESTER

A cost-effective harvesting solution you can depend on



John Deere 4.5 liter engine delivering 121kW.



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Optional 15ft and 18ft cutting platform and 4-row maize header.



Cylinder tine separation technology maximising threshing capacity and grain quality.



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News worth knowing

Successful eradication of Oriental fruit fly

DAFF hereby notifies farmers and community members about the successful eradication of the invasive fruit fly species *Bactrocera dorsalis* (Oriental fruit fly or OFF) in the Pixley ka Seme and ZF Mgqawu district municipalities in the Northern Cape Province.

Several Oriental fruit fly (*Bactrocera dorsalis*) specimens were detected between Douglas and Prieska in the Pixley ka Seme District Municipality, as well as Groblershoop, Karos, Upington, Kakamas and Augrabies, including areas alongside or close to the Orange River in the ZF Mgqawu District Municipality. The detections were made on several occasions between 7 February and 29 May 2019, respectively.

Phytosanitary actions were implemented to control the movement of fruit from the areas under delimitation. Eradication, which included the application of protein bait sprays, deployment of male annihilation (MAT) blocks and strict field sanitation within the quarantine areas was successfully conducted. The areas from Douglas to Prieska as well as between Groblershoop and Augrabies have been declared free from the presence of *Bactrocera dorsalis*.

Fresh produce host crops cultivated in the affected areas include citrus, table grapes and pomegranates. However, this is a polyphagous pest that can utilise hosts cultivated by the citrus, deciduous and subtropical fruit industries as well as berries, tomatoes, cucurbits, and crops produced for processing, i.e. grapes for raisins and wine. This pest can

result in food insecurity, yield reduction, job losses, market restrictions and high production and post-harvest costs, if not effectively controlled.

Red alert Fall Armyworm confirmed in South Africa

CropLife SA has learned about the outbreak of the dreaded Fall Armyworm (FAW) in maize in the area between Badplaas and Carolina in Mpumalanga.

It is likely to be found in other provinces such as North West, Limpopo, Gauteng, the Free State, northern parts of KwaZulu-Natal and some parts of the Northern Cape. Maize farmers are particularly vulnerable to this invasive pest species and should be on high alert for moth swarms late afternoon, egg parcels on maize leaves and caterpillars. Farmers are advised to read the CropLife SA position statement on www.croplife.co.za/FAW as well as the IRAC (Insecticide Resistance Action Committee) document on www.croplife.co.za/IRAC_FAW.

Farmers who suspect that they may have FAW in their crops should take good quality photographs with their smartphones and send via WhatsApp to dr. Gerhard Verdoorn of CropLife SA on 082 446 8946. Vegetable farmers and cotton farmers should also scout for FAW moths late afternoon. Pheromone traps are very useful for scouting and can be used effectively for early warning of FAW invasion.

For more information contact CropLife SA on 087 980 5163 or info@croplife.co.za

Inaugural Forum on China-Africa Cooperation in Agriculture

On 9 December 2019 Minister Didiza attended the 1st Forum on China-Africa Cooperation in Agriculture (FOCACA). The meeting was held in Sanya, China under the theme "Join Hands for Sustainable Development and a closer New-type China-Africa Partnership in Agriculture". FOCACA trails the 2018 Beijing Summit of the Forum on China-Africa Cooperation (FOCAC) chaired by President Ramaphosa and President Xi Jinping in September 2018, which resolved in its action plan to promote steady development of the China-Africa Agricultural Cooperation.

FOCACA focused on deepening of China-Africa Cooperation in Agriculture and the establishment of a closer new-type China-Africa partnership in agriculture, in support of Africa realising general food security by 2030. The Forum also discussed modern approaches aimed at addressing food security challenges and exchanged views on potential measures designed towards attaining sustainable agricultural development.

China-Africa cooperation in agriculture sets a prime example of sound South-South Cooperation. China and Africa have similar agricultural background and foundation, therefore the opportunity to conduct result-oriented cooperation through the comprehensive strategic and cooperative partnership is suitably timed.

Since the Beijing Summit in 2018 a range of bilateral cooperation programmes have

taken place including technical and capacity building initiatives.

South Africa has also benefited in such programmes with scholarships, which has seen South African students studying agriculture and related fields in China. In terms of trade, South Africa has also had further market access to China for South Africa's agriculture commodities.

Further work on the agricultural trade is unfolding with South Africa expecting to conclude new protocols on exports of South African agricultural commodities to China.

It is the hope of Minister Didiza that this inaugural meeting of FOCACA will increase strategic relationships between South Africa, Africa and China.

Moving on up

Knittex celebrates new office space

We are excited to announce that our Randfontein team has moved to a new location in Stormill, Roodepoort JHB. Our old office served us well, and we made great memories there, but we couldn't be more excited about our new space. The relocation is a result of the company's growth over the last two years which is reflected in the rise in numbers of both clients and employees.

The new office is located next to Main Reef Road, putting us right on the street and looking out onto the R41.

The picture shows the office from a street view. We're excited about the hustle and bustle happening outside our windows and all the great road side exposure we get from the new location.

While we were happy with our space, there were several motivating factors to make a move:

Space. When we first moved into our last office, there were 12 admin staff and 11 warehouse staff. And plenty of room... When we left, there were 18 admin staff members and 24 warehouse staff members, and space was getting tight.

Our new office. Our new 8000sq.m Office & Warehousing space offered more square footage, but more importantly it allowed us to rethink our layout. We were able to start from scratch by knocking down walls and putting up warehousing layouts that better fit our team and provide for growth. Overall, we now have more of an open plan so we're

all working closer together rather than a more compartmentalized layout as at our previous premises.

Visibility. Our previous premises, we were on the outskirts of Randfontein. Our new location right next to Main Reef Road will bolster our visibility and help us to more quickly come to mind as a local business.

Our new location is much closer to the Johannesburg CBD making it more accessible from the other areas surrounding Johannesburg. We are close to the Maraisburg offramp on the N1 highway.

Our new office space also allows for a better customer experience as well as a better sales office for the public.



Answering the call of the land

Award-winning emerging farmers show that South Africa has what it takes

Solomon Masango, Vivian Gosekwang Pico and Matthews Senokwane were recently awarded SAB's "Maize Farmer of the Year", "Emerging Female Farmer of the Year" and "Emerging Barley Farmer Award" respectively by SAB during an annual agricultural event held in Caledon. The awards recognised their contribution to supply the brewing giant with local ingredients to produce its beers. Currently SAB sources 97% of its ingredients locally.

From dynamite to maize

Solomon Masango tried his hand at a number of jobs before settling for farming.

For the past nine years he has leased land in Mpumalanga from the Department of Agriculture, Forestry and Fisheries, planting maize and soya beans.

He receives agricultural support services from FarmSol, which was set up by SAB specifically for the task of supporting emerging farmers with zero-interest bearing loans, and helps with procurement, mechanisation and advice while also entering into guaranteed offtake agreements which ensure a reliable income.

But farming was far from his first career. Solomon's first job was as a driver at a mining company in Johannesburg, working his way up to earning his mining and then blasting tickets, where he later was promoted to field services manager and then into management.

After desiring to be his own boss, he moved back to Mpumalanga and became the owner of a fleet of school buses, but soon felt that farming was his calling. He left his business and started to farm with a scant R500 000



Solomon Masango



Vivian Gosekwang Pico

behind him. "My first venture was cattle farming, but it's a hard gig, and I switched over to crops." His 50 hectares of land yielded a crop of maize.

Taking advantage of courses offered by FarmSol, he learned more about crop rotation, which is why he also plants soya beans.

In 2018, Solomon planted his first crop alongside Farmsol and delivered 636,73 tonnes of maize at a yield of 6,37.

In 2015 he won farmer of the year in the Grain SA New Commercial Farmer of the Year awards.

With his family backing him, and his oldest son at Buhle Agricultural College, the family looks set to continue the farming tradition Masango has started.

He has created six jobs, and is a contented man, from dynamite to maize, his future is bright.

No longer out to pasture

It's not every day that a woman takes on a farm upon retirement, but Vivian Gosekwang Pico did just that, and has been awarded the 2019 SAB & AB InBev Africa award as best emerging female farmer for her efforts.

Vivian worked at the Taung Agricultural College in the dairy section, until she reached pensionable age, and then she took on her second career farming barley, maize, and groundnuts when her husband, Mosieleng Herberg Pico, took ill.

While her husband still assists when he can, Vivien essentially manages and farms the 10-hectare farm on her own and has done since 2008 on the farm they lease from the chief in Taung in the North West Province. "My father-in-law farmed the land before my husband and I took it over, meaning farming runs in the family," she said.

Mentored by FarmSol, she supplies SAB with barley and maize, delivering 91-tonnes of barley last season, and has received advice and mentorship from the brewer, the most valuable advice of which has been financial advice.

For this indomitable women farmer, the working day starts at 05h00 and ends 12 hours later. "It makes me happy to be able share the fruits of my labour with my family," she says.

Vivian believes she was called by God to take on this work, and does it faithfully and with joy, hoping that her eldest son will one day take over the farm.

Vivian has worked out other ways to extend her income and the farms' influence, she owns tractors and plows and contracts to assist other farmers in the area with transporting their crops to the silo at harvest time.

With her fields filled with barley and maize, she also plants pumpkin and wheat.

Vivian is proof that retirement does not mean stopping working, and she has grabbed the challenge with both hands, looking at ways to improve her knowledge and share it with others.

A family affair

Matthews Senokwane's love of farming goes back to his childhood. He was raised by a farmer, his father, and developed a life-long love for the land. After his father

passed away, Matthews inherited the farm, and began developing it using the knowledge he had grown up with. Farming is a passion for Matthews and he looks forward to growing his farm.

The award has motivated him to work the "extra mile" to make his dream a reality. For 21 years Senokwane has farmed barley, maize, and ground nuts (peanuts). His crops for SAB are barley and maize, which he has supplied for 18 years. It's an ongoing journey for Matthews, who owns 10 hectares and leases 30 hectares. His operation is assisted by loans

from FarmSol. He pays back the loans after harvesting his crops, of which SAB receives 211 tons of barley.

Farming is a seasonal activity. In winter the barley crop is the focus, while in summer maize is the main crop. "There is no slow season on a farm, there is always something to be done," Senokwane says.

"SAB has assisted by training me on how to grow barley and on soil preparation."

His love of farming comes from the truth that if there is no farming there is no life.

At the moment Senokwane hires machinery and would like to be able to take a loan from FarmSol, or SAB to buy machinery.

In his spare time, he goes to church, plays soccer, and is a big fan of Kaizer Chiefs Football Club.

The family work with alongside him, meaning the farm is a family affair.

Mentoring future farmers

FarmSol is an SAB Thrive Fund initiative and a black-owned agricultural services company focused on incubating emerging farmers into fully-fledged, future-fit, sustainable enterprises attaining higher improved quality yields and enabling multinationals in the food and beverage sector to source reliable supply of high-quality raw materials from emerging farmers.

FarmSol's emerging farmer incubating model set out to:

- Unlock access to funding for Agri-SMMEs
- Provide technical training and support to emerging farmers
- Provide access to modern production inputs and patient financing to qualifying enterprises
- Enable emerging farmers to find a route to market for their produce.

FarmSol nurtures individuals to the point where they can thrive independently as farmers engaged in viable, sustainable and successful activities without reliance on grants of any form of broad based developmental support. FarmSol ensures a consistent and quality supply of raw materials for processing to multinationals in the food and beverage sector. This is achieved by empowering and training emerging producers to ensure they run sustainable farming enterprises and connect them to multinationals aiming to transform their supply chain through enterprise development.



Matthews Senokwane

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MOLATEK
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Exceeding expectations

New-era farmer potato tonnage reaching industry average and beyond

Eight years ago, Potatoes SA (PSA) embarked on the Enterprise Development Programme, whose aim is to establish future commercial farmers. This came with its own challenges as PSA only had limited funding to support the farmers. For that reason, farmers were expected to provide own contributions to participate in the programme.

Due to lack of potato farming skills, tonnage from the new era farmers started at an extremely low level. PSA focused its energy on ensuring that they upskill the farmers through technical support and also by ensuring that each farmer participating in the programme has access to a mentor who will provide that needed support on a regular basis.

A few years later, a number of the Enterprise Development farmers have expanded their hectares under production, using proceeds derived from their harvest. What is of note is that the tonnage yielded surpassed the industry average, which is commendable considering from where they started. One of the farmers in Limpopo received a record tonnage of 70 as compared to the area average of 50. This farmer attributed his increased tonnage to the assistance provided by PSA through the mentorship programme and also the technical support being provided. He also emphasised the use of correct quantities when it comes to chemical and fertilizers as this always impacts on the quality of the crop in the end.

The initial support from PSA was 5ha per farmer, but currently the average number of hectares per farmer is 15, with most farmers

harvesting above the industry average. The next step for PSA is to ensure that all farmers who enter the programme exit the programme after the stipulated time as commercial farmers.

One farmer, Phophi Raletjena, in the Limpopo region, who has been averaging 60 tons per ha, is now operating on a commercial scale with access to state-of-the-art machinery and all the required infrastructure such as a packhouse. Phophi was also named the First Enterprise Development Farmer

of the Year at the previous Transformation Symposium, which took place in 2018.

The next Transformation Symposium where the next Enterprise Development Farmer of the Year will be announced is due to take place in Pretoria on 4 June 2020.

The Symposium is a platform where progress made in the potato industry is showcased and farmers have an opportunity to interact with the different stakeholders and also obtain insight of the industry's future forecast.



Nomvula Xaba, Transformation Manager, Potatoes SA



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There is no doubt. Increased adoption of existing Ag-Tech and scaling up innovation to small holder farmers and large agri-ventures is Africa's path to future food security.

Small scale farmers who grow 70% of Africa's food currently have limited access to affordable and quality farm inputs, tools and innovations, and lack best farming practices, which leads to significant food and agricultural wastage.

The world has the knowledge and technological solutions. AFTI EA 2020 will explore solutions to Africa's need to look differently at how **to increase adoption of innovations** and how **to scale it up** to be accessible, available and affordable to small holder farmers and large agri-ventures.

AFTI EA 2020 provides a unique opportunity for participants to hear new thinking in Ag-Tech and gain valuable information designed to help them in their strategic agri-business planning. Superb networking with industry experts will **open up new business opportunities** to capitalise on the evolving East African agri-food sector.

Early bird rates end on 14 February 2020! Register online www.afti-eastafrica.com



Developing new farmers

Sound economic principles are the only criteria for success

From time to time, the politically motivated efforts of institutions and different role-players to establish new farmers come under the spotlight. What is important here are the criteria for success.

Agriculture is an economic process with the same rules for everyone. Applied correctly, there will be a chance of success. If it is a politically-driven process, the outcome is guaranteed to be a failure. Economic forces (market force principle) operate relentlessly: if the game is not played correctly and purely, everyone involved – as well as the the country as a whole – will soon reap the adverse effects. If so-called empowerment projects continue as they have done to date, South African agriculture will fail.

Government has admitted that more than 90% of its land redistribution programs have failed and that the land has gone out of production. The policy environment is not acceptable, lending the impression that the ANC has prioritised its political survival, while the rest of South Africa is trying to save South Africa.

When formulating policy, it is always important to look at the bigger picture to ensure that the ripple effect is addressed within the broader approach. Government and many

other role-players have over time come up with various plans that shape the agricultural environment. Plan after plan was devised irrespective of whether it was based on science or whether it would be viable in practice.

Farmers are entrepreneurs of a special kind. Entrepreneurship as a production factor is the sum total of the expertise that an individual has to apply in his business. The quality thereof will determine the extent to which the business will be successful. The market mechanism is the only way to evaluate entrepreneurship and to highlight or identify expertise in an economic sector. The proceeds from the respective production factors, which function within a certain relationship to one another, can, if applied correctly, yield a profit—which is what should be striven for in the economy.

When any programme tries to put new farmers on land to be productive and successful, they have to allow this economic principle to be applied in full. It is not only unfair to employ people in certain positions for which they do not have the necessary competence, feel and experience (briefly, entrepreneurship), but it is also detrimental to the country, its resources and possible economic growth. Intellectual property cannot be passed on through so-called “skills transfer”. Farming expertise is essential for successful commercial farming. It is the art,

science, culture and lifestyle that form part of the make-up of a commercial farmer and is core to the farming culture within the African context. A variety of characteristics in specific proportions will determine whether a person has the necessary farming expertise.

The acceptance of responsibility and a sense of urgency must be embedded. Farming expertise is also intellectual property and experiential capital, with incentives, initiatives, etc.

The transfer thereof, if transferable, holds certain cost implications. Subsistence farming can facilitate the survival of an individual or small grouping, but will be unable to serve the modern industry. A growing number of black commercial farmers have made this paradigm shift. Government and role-players should take note of this aspect and realise that existing expertise should be retained for the sake of sustainable agricultural production. Farming expertise is not simply “skills transfer”. Some of the characteristics that make up such expertise are explained below:

Acceptance of responsibility

In an economic dispensation, government must guard against depriving individuals of responsibility by providing for too many people's needs. Accepting responsibility is a core characteristic which the farmer must possess

in order to play the role of entrepreneur. Farming requires dedication, 24 hours a day and seven days a week.

Sense of urgency

The environment within which a farmer functions requires a sense of urgency on the part of the farmer, bearing in mind the high capital outlay and the rapidity with which a negative scenario can result in enormous loss which could threaten the economic survival of the business. Most tasks cannot be postponed without the farmer being unnecessarily exposed to high risk.

Decision-making

Independent decision-making is critical within the framework of a set programme and ad hoc decisions that must be taken, especially given factors such as weather conditions and the market environment.

Success will largely depend on the degree to which the right decision is made at the right time. Experience plays a determining role in this regard.

General management skills

The business must be managed dynamically and without uncertainty. Everyone involved in the business must know by whom, where, how and when things must be done. They must have the ability to make all these gears work simultaneously and prioritise as necessary.

The only mechanism that will ultimately determine whether land is used optimally is the free-market principle. The scarcity of land requires that every hectare be used correctly.

This requires competent farmers who perform their daily tasks with the necessary farming skills.

The state has a responsibility to do everything possible to ensure that the right environment is created through appropriate legislation so that agricultural land is used in a sustainable manner. The same principle is applicable when we look into the farmers themselves. The market has to determine if a person can be a successful farmer. To place a person in a position where they have to comply with all these factors and they don't have the ability to comply is to invite disaster.

The institutions that want to empower people should also realise that it is not possible to empower just anyone. Individuals have to make their own decisions to empower themselves by accepting the responsibility that life requires from anyone.

The only thing that can be done is to create the environment wherein it will be possible for a person to pick up the shovel and start creating their own future. In this regard the most important thing is that the government should create a sound and stable policy environment. That, of course, is the biggest stumbling block today. The present policy environment does not instil the trust in our economy that is necessary for investors and entrepreneurs to reach out and start building the economy.

The recommendation, then, for any institution interested in helping the people of South Africa is put government at an arm's length and apply sound economic principles that will in any case be the decisive criteria for success.

Bennie van Zyl, General Manager, TLU SA



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75 2nd Street, Booyens Reserve, Johannesburg, South Africa, 2016



Superior citrus performance

Potassium nitrate (KNO₃) foliar nutrition in citrus with Ultrasol K Plus* and Ultrasol K Plus Acid**

Citrus helps keep human beings healthy with vitamin C, but what keeps citrus plants healthy? In horticultural crops, potassium is the most required out of all the elements. Adequate potassium is thus essential in optimal photosynthesis and plant functioning.

Although potassium does not become part of the biochemical structure of plants, it does activate at least 60 enzymes and regulate a plant's water balance and the functioning of stomata. It also plays a role in energy production, the transportation of sugars through the phloem and the translocation of nutrients upwards in the xylem, as well as being involved in many steps of protein synthesis.

Potassium nitrate foliar applications are often applied at 1-4% in citrus with one to four applications in pre-bloom, post-bloom and during early fruit growth. A 4% spray application theoretically is enough to double the leaf K content (2000 litres of water per ha, 416 trees per ha) (CRI Bulletin: J Coetzee) but efficiency is only approximately 30-40 % depending on application techniques.

Of the potassium sources, Ultrasol K Plus is the most efficient potassium source in getting potassium into a plant. This is attributed to the presence of the nitrate counter ion.

Ultrasol K Plus Acid is specifically formulated for areas with high pH water. This helps to decrease the pH of the spray tank. Uptake efficiency is enhanced when the spray solution pH is between 5.5 and 6.5 units.

Besides the nitrate counter ion, there are other elements that enhance potassium uptake in this specific product. The use of your regular wetters (for droplet dispersal) is advised.

Foliar potassium nitrate has been shown to:***

- Enhance the tolerance of citrus to water stress by increasing the osmotic adjustment process
- Increase fruit per tree
- Increase fruit size
- Decrease creasing
- Increase dry matter
- Enhance taste
- Increase vitamin C content
- Increase sugars
- Promote Systemic Acquired Resistance (SAR) for control of Florida Wax Scale and HLB greening.

Foliar nutrient applications are often considered remedial and potassium nitrate foliar applications can be beneficial in citrus under the following conditions:

- If physical soil conditions are unfavourable for root growth or nutrient uptake such as unfavourable structure (compaction or lack of aeration) and water stress
- Under conditions of high root disease pressure affecting nutrient uptake

- Where chemical imbalances exist (excess competing nutrients), for example high Ca and Mg levels with relatively low K levels
- In unfavourable pH conditions where element uptake is restricted
- At known phenological stages with high demand for a certain element such as B and flowering
- When standard foliar analyses show a low nutrient level
- When nutrient demand to developing organs (eg rapid fruit growth) is more than nutrient uptake and supply by the roots.
- Factors affecting transpiration can affect total nutrient uptake by the roots and transpiration in the xylem
- Possible inadequate soil nutrient applications and unpredictable soil nutrient deficiencies resulting in a decision to apply "insurance" foliar applications.

The efficacy of foliar fertilization can be influenced by:

- The concentration of the spray tank and kg of nutrient per ha – potential burn
- The solubility of the fertilizer product
- Tank mixes. Test for physical compatibility and tank mix efficacy (sequence of adding is important)
- Buffers, surfactants and adjuvants such as wetters, stickers and humectants
- Droplet size and spray cart efficiency
- Weather conditions – avoid hot dry conditions and spray preferably in the early morning or late afternoon
- Crop specie and phenological stage (presence of leaves, leaf age) which can influence uptake and phloem element mobility
- Environmental conditions – avoid drought-stressed plants
- Application methods such as full cover or concentrated sprays.

Please contact your local agronomist for recommendations best suited to your conditions.

Article courtesy of SQM

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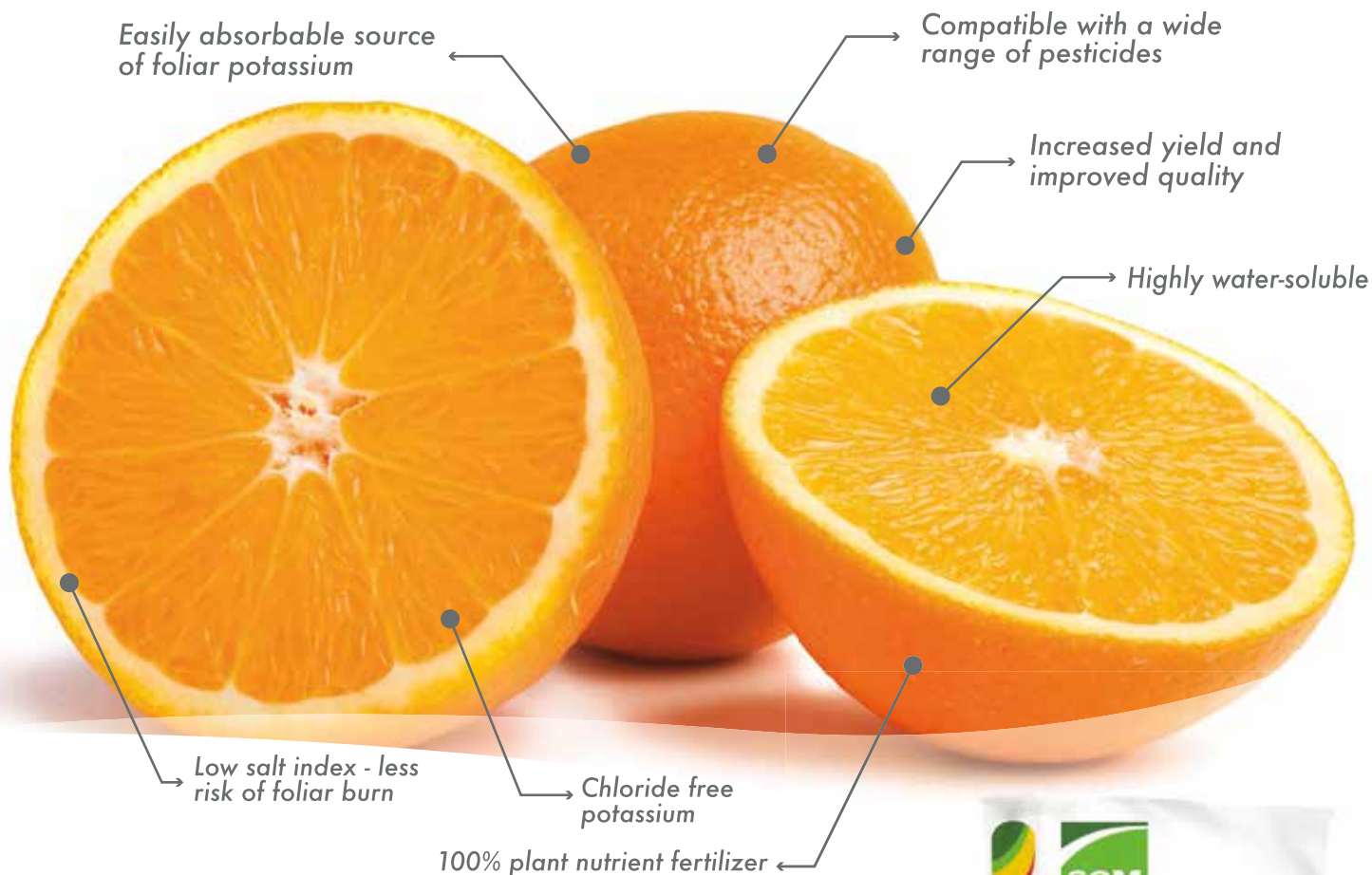
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- Increase **organic acid** and **TSS content** to enhance taste. ✓
- Increase **vitamin C** content. ✓

Sprays after fruit set ensure sufficiency of potassium for fruit growth and development, when potassium demand is exceptionally high.

Spraying Ultrasol® K Plus or Ultrasol® K Plus Acid on your citrus trees is a wise investment!.

Consult your local agronomist for advice concerning rate and frequency of application.



CITRUS FORECAST

Looking at 2020 with the Citrus Growers Association

There seem to be a number of headwinds that will impact on the 2020 southern African citrus exports. These will be discussed in a little more detail at the CGA's grower roadshows in February.

- Although tensions in the Middle East may seem far away, they are having an impact on the oil price. A headline a week back suggested a move back towards US\$100 a barrel. Any increase in the oil price will have knock on effects on transport costs – which will impact on long-distance suppliers.
- Problems in South African ports have not abated – and over December there were reports of excessive vessel delays in Durban harbour. The past year of 2019 will be remembered as a year best forgotten by the monopoly port owner and operator in South Africa. There are many who are trying to get things right in time for the citrus season – they must succeed.
- Dry conditions in the main citrus growing regions may temper the forecast growth in southern African citrus volumes. The volumes from new orchards of lemons and soft citrus coming into maturity may be offset by reductions in oranges and grapefruit in those regions impacted by dry conditions.
- Having said that there have been fairly good midsummer rains – and conditions could change quickly. Collectively, the global citrus industry needs to stimulate demand for our outstanding product. Most citrus producing countries have seen an increase in area planted to citrus – and we need to stimulate demand to keep up with supply, otherwise returns will suffer. For South Africa we need to get some long-standing market access processes concluded in 2020.
- It seems that the northern hemisphere citrus crop will be lighter in 2019/20, which could mean a smooth transition between the seasons.
- However, globally economic conditions are still tight; and it is likely that consumer prices will remain constrained.
- The rand has been like a yo-yo over the past six months, generally trending lower. The probability of further downgrades will probably lead to further rand weakening. The only counter would be some substance to the ruling party's promise of economic revival, corruption busting and turn around strategies for State Owned Enterprises.

The environment

Over the past twenty years I have travelled to China at least twenty-five times. In all those

visits I can count the number of wild birds I have seen on two hands. This includes visits to rural areas in China.

I am a bit of a part time twitcher – and love to see birds in the wild. Literature tells me that one of the reasons for the lack of birds in China was the practice of paying Chinese to kill birds.

Birds were seen as competing for the grain and foodstuffs consumed by the Chinese. People were paid by district officials for every dead bird they delivered.

Given the dire poverty in China in those years, Chinese pursued this cash flow with gusto, resulting in a collapse in bird populations.

This past weekend I was cycling in the Winterton area – a grain district.

There were flocks of Amur Falcons on the power lines (at least there is a good use for our power lines) – amongst many other birds around.

Likewise, when travelling in citrus regions one cannot miss the diverse bird types and sheer numbers of birds around.

South African farmers/growers should be applauded for their farming practices that allow nature to thrive – this is true environmental stewardship.

Justin Chadwick, CEO, Citrus Growers Association



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AGRICULTURAL RESEARCH COUNCIL

Wave-length of growth

Protect your plants and boost production with shade netting

The future of shade net in the agricultural sector is growing at an exciting pace. Many farmers have already made the choice to erect large-scale shade net structures and are reaping the benefits from it. Growth and yield performance is directly related to a plant's environment and food source. In the short-term, shade net structures can boost farmers profits by cutting costs and increasing their quantity and quality of yields. Over the longer term, shade net may even contribute to the solution of feeding the world's growing population.

A well-constructed shade house can provide the grower with a protected microclimate,

ideal for seedlings, vegetables, cut flowers, pot plants, etc. In hot climates, vegetables and cut flowers are grown under shade cloth to reduce heat and light intensity. With the help of science, innovative light manipulation and UV management, photo-selective colour netting creates an environment that can be manipulated into optimal growing conditions for crops to flourish in.

Shade netting can also help benefit water efficiency as it reduces the amount of evaporation from free water surfaces.

Knittex commenced trading in 1964, and has since grown to be an industry-leading manufacturer of highquality knitted fabric that is durable and 100% recyclable. Our SpectraNet range gives producers the highest results and best return on their

investment. This is backed by years of research and development to ensure that nets have a guaranteed lifespan of 10 years or more. Some other advantages of our nets is that our fabric does not unravel when cut. If the material is damaged, repair work can easily be done.

Due to the flexibility, durability and light-weight of our fabric, it is easy to erect. It is a very economical cover and it breathes, due to the open mesh configuration. By using the correct mesh size to manipulate air movement through the shade house, you can control the humidity and therefore also the transpiration rate.

Knittex shade net can be used to manipulate plant growth. For example, to get stem length, use a net that allows far-red wavelengths through. This will force the plant to stretch to the light. White SHADENET or Black/White combination SHADENET has been used very successfully on various vegetables, especially when grown hydroponically. Light spectra can help us to choose the right colour and percentage for your crops.

It is very important to note that there is no universal shade net to manipulate light. Each plant has its own unique requirement, and each region and crop has its own challenges. KNITTEX shade netting not only covers for protection but covers to enhance production.

Speak to one of our Knittex specialists for the best advice for your shade netting needs. Tel: 011 692 1658 or e-mail: clientliaison@knittex.co.za or visit www.multiknit.co.za



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Investment in food and agriculture in Africa

Agribusinesses to focus on a shift from importing to self sufficiency

In November 2019, the African Agri Council (AAC) held the fourth edition of the African Agri Investment Indaba (AAIL), hosted by the South African Government, the Western Cape Government and Wesgro in Cape Town. Throughout the sessions, there was broad agreement that, despite certain regulatory challenges, there is immense potential for investment in African food and agriculture.

Specific panels in the keynote touched on current political reforms, the economic and digital revolution in food and agriculture with one goal in mind: how to boost transactional discussions that will result in business expansion, capital flow and FDI. Agribusinesses are being challenged to meet the globally increasing demand for food,

fuel and fibre while balancing economic and environmental realities. Agribusiness is evolving from a local and regional model to a global structure, making this sector of increasing interest to corporations, public agencies, and society at large. With the right expertise, investment and policies, Africa can evolve and curb the current annual food import bill of \$35-billion, which is estimated to rise to \$110-billion by 2025.

Panellists in the keynote and the AgTech Summit looked at the impact of new technologies in the industry collective effort to increase efficiency and cut costs. The global AgTech market attracted \$16.9-billion of investments in 2018, and the growth in investment activity has greatly increased the speed of AgTech innovation in Africa; for example in 2017 the Bill and Melinda Gates Foundation signed a deal with the EU to

invest over \$600-million in agricultural innovation in African and South Asian countries. By the start of 2018, 82 AgTech startups were in operation across Africa, with 110% growth in start-ups operating in the market since 2016 reported by Disrupt Africa. In 2019, over 280 ventures were reported on the continent with an increased focus on specific “home-grown” market-related solutions. However, we cannot discuss the business of agriculture in Africa without smallholders. In this regard, government regulation, historical practices, and poor training have slowed technology adoption on the continent.

There was an overwhelming feeling among delegates that Africa should now focus on a shift from import dependence to self sufficiency. The Indaba's co-located events, which included FAO Agri-Invest Roundtable, African Development Bank (AfDB) Investment





Aliyu A Abdulhameed MD and CEO Nirsal – Ben Leyka CEO African Agri Council CEO

Masterclass, Grow Africa Development of Regional Agro Dealer Network in Southern Africa Workshop, AgTech Investment Summit, Agro-processing and Retail Masterclass, Commodity Value Chain Masterclass and Future Markets and the Future of Food Masterclass, offered a real opportunity for participants to align themselves with

institutions such as the FAO, AfDB and Grow Africa/NEPAD, while addressing areas that should deliver meaningful impact to the development of African agriculture.

Furthermore, at the heart of African Agri Investment Indaba (AII) 2019 were the Closed Sessions and Investment Discovery Sessions (IDS). AII Closed Sessions were by

invitation only with privately held meetings between investors, selected agribusinesses, financial institutions and government officials. The Investment Discovery Sessions hosted both medium – and large-scale commercial businesses, including a food hub / market-precinct solution by ZAMBIA Fresh Lusaka Market (ZLM), processing factories for raisin drying, paste and syrup, peach drying, pecan cracking and vine leaf harvesting by Redsun Raisins, Citrusdal Upper Olifants Dam options and Olifants River system by the Citrusdal Water Users Association, Mozambique citrus and mango processing projects by Moriah Fruit and a Lesotho Project by Stargrow.

The future of food in the world will depend on what Africa achieves in agriculture, said Dr Akinwumi Adesina, president of the African Development Bank (AfDB). This is why it is imperative for Africa to be at the top of the global food security agenda. AII is certainly at the top of the global food and agriculture community agenda. This “must attend” event provides a voice for bankable agribusiness opportunities and afford the opportunity to promote Africa as a business and investment destination, drive transactional discussions, profile traditional financial and investment offerings, and provide a platform for those challenging the status quo to meet the complex requirements of an African investment landscape more often dominated by risk rather than returns.



About the African Agri Council

The African Agri Council (NPC) is a network of global executives, decision makers and key stakeholders in the agricultural industry. We connect executives with their peers, policymakers, investors and financiers and leading global service providers across Africa and around the world.

For more information, go to www.agri-council.org.

For more information about our 2020 events contact Cindy Euston-Brown cindy.eustonbrown@agricouncil.org

BACTERIA HAVE A RIGHT TO LIFE

The importance of preserving the lives of beneficial microorganisms

In bioremediation research conducted by the Microbiology and Environmental Biotechnology Research Group at the Agricultural Research Council – Soil, Climate and Water (ARC-SCW), bacteria and fungi possessing abilities to help with pollutant degradation as well as to enhance soil fertility were isolated and identified. These microorganisms are also able to associate with plant roots in a mutually beneficial manner.

The combination of organisms was used to biodegrade polycyclic aromatic hydrocarbons, which are organic pollutants in different environments, including soil. Biodegradation by a combination of organisms is enhanced because the synergism of their metabolic assemblages is deployed, which then makes the process sustainable. Pollution in soil has reduced available arable land and prevented soil from being optimally functional. There is, therefore, an imperative need to

reclaim agricultural land, knowing full well that land is a non-renewable natural resource within the human life span. The research study was funded by the National Research Foundation (Thuthuka grant number 84168). Microorganisms are those life forms considered too small to be perceived by the naked eye but only through a microscope. One of their well-known characteristics is that they are found everywhere – in the air, soil and water, and within or on the surface of other living beings. Amongst

all microorganisms, bacteria are the most prominent. Some bacteria are considered to be “good”, others “bad” and some in between. The good ones are known for various functions in human health, food processing, pharmaceuticals and agricultural uses. The bad bacteria are those known to cause diseases and infections in humans, animals and plants. It is now common knowledge that the harmless and beneficial bacteria far outweigh the detrimental ones.

Considering the bacteria in soil, the beneficial bacteria are known for functions such as promoting plant growth, increasing soil fertility by mobilising nutrients and warding off plant diseases. This group of beneficial bacteria is referred to as plant growth promoting bacteria. Furthermore, some beneficial bacteria are also known to aid mycorrhizal formation with plant roots; these are the mycorrhizal helper bacteria. Mycorrhizal associations are formed in many host plants by obligately or facultatively symbiotic fungi. Obligate symbiotic fungi would only complete their life cycle and be functional while in a relationship with their host whereas facultative symbiotic fungi would be functional with or without the host.

Mycorrhizal associations are important in various ecosystem functions, such as initial plant colonisation on land, forest establishment and maintenance, reclamation and



rehabilitation of previously polluted land, and are also used as bioinoculants to improve agricultural output.

Another group of beneficial bacteria in soil is the Rhizobia, which are soil bacteria that are prominent in the biological nitrogen fixation process within nodules of some leguminous plants.

Performing these positive roles, the life of such beneficial microorganisms should be considered very special and therefore safeguarded.

Any form of encroachment or anomaly such as pollution, degradation and even tillage of the soil directly and indirectly impacts negatively on soil bacteria.

Soil pollution destroys a great number of harmless and beneficial bacteria, with serious repercussions on the functioning of the soil. Indirectly, the presence of certain pollutants (such as electronic waste) could trigger antibiotic resistance in soil bacteria, thus making them more virulent.

From the angle of sanctity of life, activities negatively impacting microbial lives are clear cases of violation of the life of soil bacteria and are obvious injustices to soil microorganisms

in general. The right to life and protection of beneficial bacteria should be advocated, as it exists for other life forms. Hence, something must be done to protect bacteria from the adverse effects of soil pollution.

It is common knowledge that harmless and beneficial bacteria far outweigh detrimental bacteria

Pollution puts our soils in danger, with the implied threat of them becoming incapable of meeting human needs. Soil is able to provide its various ecosystem services because it is a living system comprising different microorganisms (bacteria, fungi, protozoans,

viruses), insects, earthworms, nematodes and arthropods. Soil, therefore, provides a habitat for all these organisms and is the basis of the terrestrial agroecosystem from which we derive feed, fibre and fuel. Indeed, soil is the medium that human survival hinges on. As long as soils are at risk and the good soil bacteria are eliminated, sustainable agriculture, food security and the provision of ecosystem functions will be compromised.

In the ARC-SCW Microbiology and Environmental Biotechnology Research Group we are passionate about understanding the various microorganisms in the ecosystem and creating ways of utilising them to address key human challenges.

Dr Maryam Bello-Akinosho
ARC-Soil, Climate and Water
Tel: 012 310 2646
E-mail: BelloakinoshoM@arc.agric.za

Prof Rasheed Adeleke
Unit for Environmental Science and Management
North-West University
Potchefstroom 2520, South Africa



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Government's policy conundrum in funding research

More R&D in agriculture can alleviate unemployment, inequality and poverty, writes Dr Thulasizwe Mkhabela

As the global population continues to increase, we can expect almost a doubling of demand for food until 2050. The population, thus food demand, continues to increase while the natural resources are being depleted and the land available to produce food from is finite. Furthermore, there is increasing competition for resources such as capital and public investment from other sectors.

This competition for public funding is particularly pronounced in a country such as South Africa faced with a plethora of pressing needs such as poverty, unemployment and inequality. It presents policy-makers with a conundrum when it comes to the allocation of the limited financial resources at their disposal. However, as a country, we should never lose sight of the ever-present food security challenge compounded by the so-called triple challenge of unemployment,

inequality and poverty faced by South Africa. Fortunately, the triple challenge and food security are not mutually exclusive and can be addressed concurrently.

Food security is a complex phenomenon that has different connotations for different people. While there are many definitions of food security, the universal definition is "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets



their dietary needs and food preferences for an active and healthy life". South Africa has a dichotomous food security status: while being food secure at national level, there are still many households that are food insecure and face hunger. According to Statistics South Africa, 6.8 million people and approximately 1.7-million households experienced hunger indicating food insecurity in 2017.

There is consensus that investment in agricultural research and development (R&D) enables the sector to improve productivity and competitiveness, subsequently boosting the entire economy. However, spending on South African R&D has deteriorated over the past two decades due to low budget allocation to state institutions such as the Agricultural Research Council (ARC). Empirical evidence buttresses the point that public spending on agricultural R&D in South Africa has been on the decline by showing that real spending averaged a 5.1% annual growth rate between 1911 and 1950, then rising to an annual average of 7% from 1950

to 1971, after which real spending in agricultural R&D ceased to grow.

According to the Department of Science and Technology (DST 2017), the country's gross expenditure on research

There is consensus that investment in agricultural research and development (R&D) enables the sector to improve productivity and competitiveness

and development (GERD) was estimated at R32.3-billion in 2017, where the public purse contributed 44.6%, the private sector funded 38.9% and the rest came from foreign sources. Of this GERD spending, the agricultural sector accounted for a mere 8%, which is considered low for a country faced with developmental issues such as low crop yields, increasing incidences of pests and disease outbreaks, and the growing inequality gap. Our discussion now turns to the effects of reduced public spending on agricultural R&D on employment.

A recent study measured the opportunity cost of inadequate public investment in agricultural research and development on household food security. Opportunity cost speaks to the benefits of increased food security foregone by not allocating sufficient public finances to research in agriculture. Admittedly, food security is a multi-faceted phenomenon, including food availability and access.

Access is related to affordability, which in turn, is determined largely by income and food prices, amongst other things.

To measure the implications of investments in R&D, three policy scenarios were created:

1. Opportunity cost scenario of lowering public spending on R&D compared to the baseline (2011)
2. Increasing R&D spend by 5% over the baseline period (2011); and
3. Increasing public spend in R&D by 12% above 2011 baseline.

The budget allocation to the Agricultural Research Council between 1992 and 2017 was used to calculate changes in R&D spend.

The study found that increasing total investment in agricultural R&D by 12% above the 2011 baseline over the next five years would reduce food prices by up to 6.8% by 2022.

Furthermore, the study found that low agricultural R&D spending between 2011 and 2017 adversely impacted household expenditure. Consumers paid R5.3-billion more on food purchases between 2011 and 2017 and this could increase to R12.4-billion by 2022 relative to the baseline if spending on R&D is not increased. The consequence of escalating food prices has exacerbated food insecurity in the country. These results clearly buttress the importance of investing in agricultural R&D to promote innovations thus reducing the pressure of food price escalations.

This partly contributes to the slow progress achieved in addressing inequality over the past two decades. Weaker R&D spending also raises concerns over South Africa's ability to transform, innovate and modernise its food systems to a level that it resolves food insecurity and unemployment issues in the country.

Given the overwhelming evidence, South Africa should seriously consider increasing expenditure on agricultural R&D and adequately fund institutions such as the ARC if the country is to get out of the unemployment quagmire it finds itself in today and confront the triple challenge of unemployment, inequality and poverty head on.

Dr Thulasizwe Mkhabela is an experienced agricultural economist and is currently the Group Executive: Impact & Partnerships at the Agricultural Research Council
mkhabelat@arc.agric.za



Grit, determination, opportunity

Getting practical about agricultural sector growth and youth unemployment

Musa Mfengu knew nothing about horticulture when he left Cofimvaba in the Eastern Cape to live with his mother in Stellenbosch so that he could attend Kayamandi High School. There he lived with his grandparents and siblings, all dependent on his mother's single income as a domestic worker.

As an enterprising student who enjoyed biology, Musa took the initiative to visit the Department of Genetics at Stellenbosch University, where he discovered the fields of forestry and agriculture. With the help of the Western Cape Department of Agriculture, Musa obtained a bursary to study towards a Bachelor of Agriculture degree, which he completed in 2011.

Musa has come a long way since then. Now, as Head of Production at Backsberg Estate

Cellars, a producer of blueberries within the BerryWorld SA structures, Musa manages 31 permanent staff and 320 seasonal workers. As a husband and father, his proudest purchase is his family home. Reflecting on what drove his ambition, Musa remembers his grandmother's words: "if we do not go to school and acquire the necessary skills, the kids of the kings and academics are waiting for us to polish their shoes." These words kept him chasing his dream.

At 34, Musa's skill set includes nutrient management, soilless production management, seedling production, fertigation management, labour management and farm management. But his career started with a series of short-term contracts, ranging from two to six months.

If you ask Musa's mentor Craig Fulton, the Pre-Harvest Manager at BerryWorld SA, how Musa gained a foothold into the industry, he emphasises Musa's personal qualities: he is

"For every hectare of blueberries we plant we can create two to three full-time jobs, the highest employment intensity of any fruit type in South Africa"

curious, disciplined and intense. He is determined, bordering on stubborn, and takes pride in his work. These are the same qualities Musa highlights.

We can find these attributes in unemployed youths across the country, who lack access to work experience opportunities and guidance. Musa and Craig actively support networking, development and mentorship of youngsters in the blueberry industry because they believe in the opportunities available to emerging farmers and young professionals in this industry.

This sentiment is mirrored by many of the soft fruit industry stakeholders (farmers,





technical service providers, and exporters) who already are involved on different levels in job creation and the development youth in South Africa.

For every hectare of blueberries we plant we can create two to three full-time jobs, the highest employment intensity of any fruit type in South Africa. And this is in an industry that pays wages on average 15% to 26% above the minimum wage.

This year, Musa is completing his post-graduate diploma in agronomy. His ambition is to be the best blueberry producer in his group. But he will need support to achieve this because there are major challenges for new growers. Blueberry production is capital intensive. It also requires market linkages, getting technical support and having access to good soft fruit genetics that ensure high yield potential and high-quality fruit.

Musa's story is a powerful illustration of the power of agriculture to drive employment among the youth. In particular, the potential of blueberry production as a driver of employment and career development is almost limitless.

Global and local demand for blueberries is sky-rocketing as people become more health conscious and ongoing research

confirms the health benefits of blueberry consumption.

This year, South Africa's blueberry production this season will reach a new record at 17 000 tons. This is remarkable compared with just 4100 tons in 2016. In Rand value, South Africa's blueberry exports grew from R133-million in 2013 to R1.058-billion in 2018

With access to more markets, particularly the large and lucrative markets of the Far East, employment opportunities in the South African berry sector can soar.

We only have to look to Peru to see the potential. Peru managed to increase its blueberry production from 10 700 tonnes in 2015 to 89 700 in 2018. In Rand value, Peru earned R5,6-billion from blueberry exports in 2018 alone.

On the current trajectory, South Africa can reach 100 000 tons by 2029, creating 35 000 jobs. But will we have the skills on hand to take advantage of these jobs? The question is whether we can encourage young people to focus their education on the areas where the skills gaps are. Because when grit and determination meet opportunity, young farmers like Musa Mfengu flourish.

Musa's story is about more than employment statistics. It's about opportunity, career

growth and upward mobility. Blueberry farming especially needs a blend of manual labour and technical skills with not enough skills available.

So the industry has to invest in young workers and develop their skills, creating a path for young people to progress from low-skilled, seasonal work to professional careers in horticulture.

Both government and industry can contribute more to support new entrants to agricultural production like Musa and set them up to succeed. The reality is that emerging farmers will need capital and mentoring to emerge as significant players in the industry.

Government and industry have a responsibility to collaborate to ensure that there are sufficient financial and knowledge resources available to emerging farmers like Musa. This is a pre-requisite if we are going to reduce youth unemployment; to introduce more producers in the sector, increase our production capacity; and to ensure the transformation we all want to see in the agricultural sector.

Jeán Kotzé, Chairperson of the South African Berry Producers Association

A new galaxy of apples

FLASH GALA™ volume to increase exponentially in 2020, nine years after it was found

February 2020 is when shipments of the full-coloured FLASH GALA™ are expected to reach the Far East ahead of a much anticipated reception. With over a million trees already planted, Bigbucks, the improved Corder Gala apple strain, is now the most successful new variety in terms of orders placed in the history of the South African Plant Improvement Organisation since launch date.

Named after Buks Nel, Tru-Cape Fruit Marketing's New Variety Expert, 2019's Agriculturist of the Year and a fruit industry veteran, Plant Breeder's Rights were awarded to Bigbucks' owners, Pink Vein (Pty) LTD. That company comprises Buks Nel, Derek Corder, the grower who discovered Corder Gala, and Anthony Rawbone-Viljoen, on whose Oak Valley Estate the strain was found.

Now, after a lengthy process of name selection, a brand name for the fruit is confirmed. Today, FLASH GALA™, the trademarked fruit of Bigbucks trees, joins other global topfruit brands such as Pink Lady®, the improved Cripps Pink strain and is poised to disrupt the global fresh fruit industry.

The sweet spot for FLASH GALA™ is the high pack-out percentage. This means that more purchase-ready fruit from one tree can be picked at one time than many other commercially grown apple or pear varieties.

"It all started on the afternoon of 18 January 2011, one of those few very hot days in

Elgin. It was the deep wine-red colour that first caught my eye," explains Buks Nel, "and the fact that unlike most Gala strains which are unstable deep within their souls, this one remains true to type. Reversion to the original poorer bi-coloured mutations is a negative characteristic that occurs relatively often. Galas are, on the other hand, also very prone to mutate into better coloured clones. Therefore, reversions (negative) and mutations (positive) are as much part of Gala strains as brandy is to Coke. Poorer colour and instability have for years hampered Royal Gala and its clones. This figure could vary from 5% to 50%. The grower who plants a Bigbucks tree will have a saleable crop of FLASH GALA™ apples every time. And, as the tree can be picked in one go, it is much more efficient than many other trees that need to be picked two or three times as fruit ripens and colours at different stages. We are achieving near 90% FLASH GALA™ pack-outs, which is almost unheard of," says Nel.

According to Calla du Toit, chair of the Bigbucks Growers Association and chair of The Pink Lady Growers Association, this find is the kind of reward that makes a lifetime of walking orchards in search of the perfect fruit worthwhile. "Now, in Buks' seventh decade, a find such as FLASH GALA™ is a just reward for a lifetime of passion. In the fruit industry a find like this is pretty much like discovering a new galaxy might be for astronomers. The reason that Buks was in the right place at the right time to notice the mutation on the

Corder Gala is because he has dedicated his life to being in orchards every day, especially at apple ripening time," Du Toit concludes.

Anthony Rawbone-Viljoen says that the process to arrive at a brand name was a long one. "It was right to name Bigbucks after Buks and with the promise that it would make big bucks for those who planted it. We didn't want to register a name that might suggest to the consumer that this fruit was expensive, so we embarked on a brainstorming session for names and then commenced the process of searching for a name that hadn't already been registered or that, when sold in one of the over one hundred countries in which South African apples and pears are sold, we would not be offending cultural sensitivities in those countries. The idea behind FLASH GALA™ is that it will be sold in a flash and also that the bright red colour of the fruit is like a flash of light. Although it is often said that dynamite comes in small packages, in this case it is most definitely true. Issued with a warning: please mind the FLASH," he says.

Grower Derek Corder is among the first who have planted Bigbucks trees. He explains: "The unique pink or red mid-rib on the leaf is used to identify the variety after the fruit has been harvested. While, on the tree, the pink vein (from where the company name comes) down the centre of the leaf is characteristic. The FLASH GALA™ is 80-100% wine-red blush with no striation.

Brian Berkman

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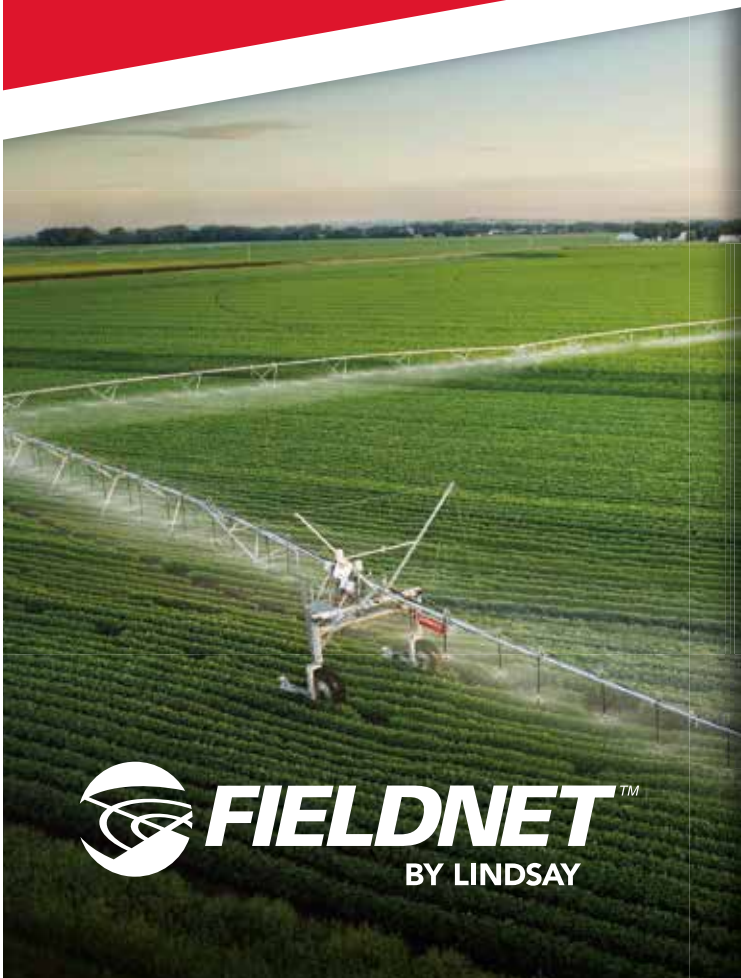
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SAVE OUR SOIL

Conservation Agriculture is coming to the fore

Soil, farmer, tractor, plough – these elements have been indissociable from the popular image of the farmer for generations, but the times are changing. Today, plough-based farming has a sustainability problem, with old-school practices implicated in soil erosion and even climate change. As stated on the Grain SA website:

“In South Africa, crop production systems based on intensive and continuous soil tillage have led to excessively high soil degradation rates in grain producing areas. This adds to the growing problems with profitability and poverty in some of the rural areas. According to a recent study by the Agricultural Research Council (ARC) in South Africa, the average soil loss under grain crops in the country is 13 ton ha⁻¹yr⁻¹, which is much higher than the natural soil formation rate. If we have to offer farmers a better chance to survive on the farm and if sustainable and economically viable agriculture is to be achieved, then the paradigms of agriculture production and management must be changed.”

This is where Conservation Agriculture (CA) comes into play. We spoke to Marius Ras, Group Marketing Director at Rovic Leers, to find out more about how farmers can do more to save the soil without pruning profitability.

What are the essential principles of Conservation Agriculture?

The Rovic Leers approach to Conservation Agriculture has a very specific angle to it: Conservation of environment and natural resources as well as securing viable and profitable commercial farming all weigh equally. This simply means that any concept

or design needs to meet the expectations of highest possible efficiency as well as minimal environmental impact.

Some might say that CA is just a nice-to-have in a brutal reality of globalised industrial agriculture. How would you respond to that?

There are two sides of the coin: End-user (consumer) demands as well as long-term sustainability in agricultural production. The awareness of the Baby Boomers (and older) around environmental impacts pales in comparison to later generations – who are the new generation of consumers. This means that the modern consumer demands much more effort in conserving both sides of the coin – you cannot just blindly tip the scales to the one or the other side. Balance is the key. It is the same coin today.

The fact is that climate change is a forgone fact, but there will always be people (in “high” places) that deny it’s presence and risks – even some politicians. In the same vein, conservation agriculture, when approached with the above balance in terms of objectives,

has been shown over decades and millions of hectares to be a profitable, sustainable business model for agricultural production. Do yourself a favour – google “Conservation Agriculture and Carbon Emissions” and never stop reading!

Turning soil during conventional cultivation sends billions of tons of valuable carbon into the atmosphere – turning this valuable asset for good soil health into the most dangerous contributor to climate change, while changing seasonal and rainfall patterns to the detriment of agriculture. Meanwhile, everybody is consuming food and water!

Conserving the carbon in the soil, whilst building the carbon content by leaving or introducing organic matter on the soil surface will conserve soil, moisture and increase carbon content in the soil over time – adding to the physical and biological improvement of the soil.

This minimises risk in dry periods, prevents soil from being washed to sea in wet periods, stabilises the soil surface and prevents it from being blown into the atmosphere during windy periods, and presents the crop with



Rovic Syncroplant

a very favourable and healthy medium in which to flourish. THAT is the brutal reality – and CA is the key to break this devastating cycle and secure sustainable, profitable agricultural production.

What challenges does the implementation of Conservation Agriculture present?

We should never forget that Conservation Agriculture by implication and character will require higher levels of skill and management on farm. No guaranteed recipes exist, but a scientific, measured approach is required. This is to my mind the biggest challenge in the broad agricultural environment, being met with resistance from some producers and input suppliers.

Then, potentially less energy (tractors and implements) is required.

This does not spell more wealth and profit for input suppliers in the mechanisation and energy-supply trades.

Further, potentially less chemical inputs are necessary – both in pest and disease control as well as in soil fertility and soil calcium content (ph) management. Likewise, these input suppliers potentially will see less benefit.

It thus becomes a chicken-and egg-situation – the producer experiences resistance when asking for opinions from ill-informed individuals, and sometimes they are then just poorly advised and frightened to face the changes required to make. Fear and resistance to change spells stagnation.

Where do you see the opportunities for CA growth in SA and sub-Saharan Africa?

The commercial farming sector in South Africa has NO excuse to claim to be ill informed on the burning requirement to adopt Conservation Agriculture principles – Institutes like Elsenburg and Grain SA have shown these principles to work both in research and in practical terms.

There are hundreds of thousands of hectares of commercial farms in all sectors of farming that follow various models of Conservation Agriculture in South Africa, proving commercial sustainability.

More than 75% of the Western Cape Wheat is CA grown, thousands of hectares of deciduous fruit orchards are switching to better



Rovic BioSpread

ways of managing cover crop and organics on the tree line, and other horticultural crops are opening up to this trend.

The summer broad-acre cropping environment is slowly and cautiously testing CA waters, with less than 5% of summer broad-acre crops produced CA style.

As for Sub-Saharan Africa, this developing agricultural market is limited in its exposure and acceptance to CA. Low-cost equipment from India and China are being sold on a per kg basis on huge government tenders to supply the small-scale farmers with dated and conventional equipment.

Destruction of soil and other resources shows the result – in an area where water and soil is present in abundance.

What other markets are you involved with where CA is taking off?

Australia produces its wheat virtually 100% in CA fashion, but the horticultural environment has not woken up to this call yet.

Brazil and Argentina are known for their success as CA farmers worldwide in broad-acre crop production.

What message would you convey to the Agricultural Development Agency (ADC) with regard to CA?

If the ADC does not have conservation agriculture as their only core focus, they are born to fail in growing new-era farmers to sustainable independence.

How does CA play into the development, design and manufacture of your products?

Rovic Leers' own locally manufactured brand, ROVIC, has developed and commercialised horticultural spraying technology over the past 12 years that has proven (by independent research and consultants) improved recovery of agrochemicals on the target, virtually no run off when applied correctly, and thus improved efficiency with reduced drift and soil/ground water contamination.

These are all achieved with dramatically less energy consumption and improved field efficiency.

Patents like SYNCROFLOW®, EVENFLOW®, VAM® and RAMP® are all part of this drive for higher efficiency, less contamination and less energy consumed result.

The ROVIC SYNCROSEED® and SYNCROPLANT® are the Conservation Agriculture seeding and planting tools for small grain (wheat, barley, canola, alfalfa, etc) and large grain (maize, soya, sunflower, beans etc).

They can plant and seed in all types of soil, accurately and efficiently. This gives the conventional farmer a chance to progress to CA without needing to move to zero/no till in one step.

This mitigates the risk, affording the opportunity to learn and grow into the level of conservation farming, in balance with sustainable, profitable production.

ORE, SOIL, WATER

Mining and agriculture can complement each other sustainably

Mining has a mixed legacy in South Africa. On the one hand, mining laid the foundations for a modern industrial economy unlike any other in Africa. On the other hand, a myriad allegations of social and environmental injustice have been levelled at the mining industry. Today, one of the flashpoints is the competition between mining and agriculture for vital resources such as soil and water. However, it is entirely feasible for mining and agriculture to complement each other sustainably. Mpho Ndaba, Chief External Affairs : VZI Projects, tells us more.

What are the greatest threats that mining poses to water security?

What can the mining industry do to prevent water pollution and rehabilitate water pollution?

Mining and agriculture are mutually dependent sectors and both utilise extensive amounts of our limited water supply. In the South Africa context, mining operations are not a significant user of water when compared to other uses such as irrigation which accounts for approximately 60%, livestock watering and nature conservation 24%, municipal domestic (urban) water use accounts for 24%, while municipal domestic (rural) water use accounts for 3%, mining accounts for only 2.5% water use, while bulk industrial water use makes up 3%, power generation accounts for 2% and afforestation

makes use of 3% of overall water available for industrial application.

Mine water pollution emanates from abandoned and derelict mines, active mines (underground and surface mining operations) mineral processing facilities, haulage roads, tailings and mine waste disposal facilities.

Mining industry stakeholders are constantly working towards finding the optimum and most cost-effective water treatment technology.

The South African government has conducted several feasibility studies to find the most sustainable solution. The government has considered physical treatment, chemical, biological and passive acid mine water treatment options. The results of their assessment illustrates the following as the most viable options:

- Reverse Osmosis (RO) for desalination (Physical Treatment),

- High-Density Sludge (HDS) for neutralisation and metal removal (Chemical Treatment) as a short-term intervention and it is being implemented in the Witwatersrand to deal with AMD; and
- Ion Exchange (IX) for uranium removal (Physical-Chemical Treatment) if required.

There's a need for a strong commitment in the employment of biodiversity offsetting with specific emphasis on aquatic ecosystem restoration in all mining operations as a strategy to compensate for the negative residual impacts of mine development on biodiversity.

This will require constant monitoring of contaminated aquatic ecosystems to enable early detection of fine sediments and heavy metals.

The government needs to develop a framework which will enable it to collaborate with the mining industry to periodically evaluate



aquatic ecosystem metal pollution and the employment of mitigation measures.

Our company recycles and reuses water, committed to zero discharge, our tailings dam located 3.2 Km from plant to store 3.55Mtpa of tails and has HDPE liner as per environmental regulations.

What steps can mining companies take to ensure that soil is rehabilitated post mining?

This requires good governance and mostly the will for the mining project to employ environmental protection measures to protect the soil and water from acidification. Where it is inevitable the mine can engage in concurrent rehabilitation of mined out areas and or employ modern state of the art soil reclamation bio-chemical technology.

In what ways do mining and agriculture complement each other?

There are several complementary areas between these sectors, one very important one being that the agricultural sector is heavily reliant on mining in that the modern farming machinery (tractors and implements) and other products are a result of minerals beneficiated into finished products. Certain minerals are also used as fertilisers which include Lime Ammonium Nitrate (LAN) an incredible formula trusted by farmers to grow and increase plant yield and vermiculite improves soil drainage, aeration and has proven to be the most superior mineral for water retention.

Vermiculite is a mineral preferred for water-loving plants.

Seedlings growers who supply seedlings to our vegetable farmers use vermiculite extensively as it enables rapid germination of seeds allowing our farmers to meet our country's food requirements.

The mining project also provides a readily established large market for farmers to supply their produce. Mines also own large tracts of arable land and can utilise this land for the development of alternative employment opportunities as part of their Local Economic Development (LED) legislated Social and Labour Plan (SLP) projects.

These projects should be commercial agricultural projects with the primary aim of replicating the local mining sectors

economic and employment multipliers. Western Australia's (WA's) mining companies are displaying this awareness successfully.

In the Pilbara, Western Australia, Citic Pacific Mining Sino Iron project operates one of the largest magnetite mining and processing operations which include downstream processing consisting of six production lines. The company has a land lease in the Pilbara consisting of a free range beef production operation, with over 8 000 head of selectively bred cattle in collaboration with the local population.

Rio Tinto is not only the world's largest iron ore miner; in the Pilbara region it also operates a land lease over 1 500 000 hectares of land. Five of the leases are managed by the miner managing an estimate of 24 000 head of cattle. Water from the mining dewatering process is being utilised for crop irrigation producing over 25 000 tonnes of hay averaging eight cuts per year, a good way to dispose clean water from the mine dewatering process.

The hay is used in cattle operations with the surplus sold to local farmers and to the Middle East.

What is your vision for the sustainable co-existence of mining and agriculture in future?

Mines should start seeing the co-existence of agriculture and mining as a profitable business opportunity to farm large open tracts of non-mining or reclaimed land as an activity which can stimulate local employment, diversify the local economy, ensure the mine

is not the only source of employment and to ensure a viable agriculture economy that can sustain the local economy beyond the life of the mine. The development of a sustainable agriculture sector will require the following to be considered:

- Continued investment in Research and Development (R&D) targeted at advancing our knowledge of ecological reactions to heavy metals
- Recycling and reusing water
- The mining company using its capabilities to identify local, regional, national and international agricultural markets to assist with securing farming contracts and accessing of supply chains.
- Agribusiness training to be offered to mineworkers and mine community members as part of the SLP downscaling and retrenchment training programs
- The mining company to use its capabilities to secure funding, to secure working capital to fund early stage agribusiness enterprises along with making use of the funds already budgeted for the SLP
- Making available relevant mining company infrastructure which can be altered to agriculture needs such as packing and storage facilities
- Allow the agriculture project to make use of the mining transport and logistics infrastructure where feasible
- Invest in the development of agriculture support services, financial services and production inputs
- Important is the creation of a conducive investment environment (place marketing).





A winning formula

Engen's agri-partnerships are
nurturing the next generation of farmers

Agriculture is a cornerstone of the South African economy, employing over 800 000 people and feeding a population of close to 57 million. It also remains a significant contributor to foreign trade and the GDP through exports.

Acknowledging the vital role that farming plays in sustaining, developing and enriching our country, Engen has nurtured several long-standing partnerships aimed at ensuring the sustainability of the agricultural sector.

Engen's long heritage within agriculture is built on a legacy of supplying farmers with quality fuel and lubricants that are tailored specifically to unique South African conditions.

This has seen Engen consistently recognised as the preferred fuels and lubricants brand for many South African farmers. It is an association that spans over 100 years and sees approximately 50% of local farmers choosing Engen to power their operations.

Engen Lubricants Marketing and Business Development Manager Adnaan Emeran says supporting and developing meaningful partnerships in the communities in which the company operates is paramount.

It's also a vital component of Engen's drive to help develop the technical skills of the country's youth.

"As passionate supporters of education and youth development, Engen is a member of the Plaas Agricultural Youth Foundation, which provides school-going agriculturalists with practical, real-world experience. By partnering with Plaas, we are helping to nurture the next generation of SA farmers," comments Emeran.

For the fourth consecutive year, Engen has partnered with the South African Federation of Vintage Tractors and Engine Clubs (SAVTEC) for the Engen Engine Restoration Challenge. This exciting initiative challenges youth and young adults from farming communities to restore old engines in order to stand the chance of winning R200000 in prize money.

Emeran says that Engen, along with SAVTEC, continues to embrace the opportunity to transfer and develop mechanical skills through the mentorship elements of the competition. "Key to the spirit of the competition is the transfer of knowledge to the youth and youth skills development," he adds.

Once again in 2019, Engen also co-managed and exhibited at NAMPO Harvest Day, which is the largest agricultural exhibition in the southern hemisphere. Taking place just outside of Bothaville in the Free State, the exhibition attracts a broad range of farming stakeholders, including national and international exhibitors, government,

supplier industries and the farming community at large.

"We have proudly supported this Grain SA initiative every year for the past 41 years and acknowledge the significant role that such platforms play in strengthening the agricultural sector," says Emeran.

With close to 80 000 visitors in 2019, the two-day event provided Engen with ample opportunity to interact and engage with key customers and partners.

"NAMPO is the ideal setting for presenting our top-quality products to farmers and is built on relationships that go back decades. We are confident that we produce fuels and lubricants that really perform in local conditions and thank the South African farming community for their loyalty," says Emeran.

In the spirit of giving back and acknowledging their loyal customer base, Engen has launched a tractor competition, which will see one lucky farmer start off the new year as the owner of a Massey Ferguson tractor valued at R465 000. To stand a chance of winning, one simply needs to purchase 400 litres of qualifying Engen lubricants from the nearest participating co-op. With one in every two South African farmers relying on Engen's quality products, local expertise and global technical excellence, Engen's keen agricultural focus and their long-standing partnerships will certainly play a significant part in the sustainability of the agricultural sector.



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Superior Orchard Technology



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