

WORLD ENVIRONMENTAL DAY: 5 JUNE

From the editor

Societies across the globe and economies through the ages were built on agriculture.

The first farming started around 12 000 years ago and since then agriculture and related technologies have evolved to what we have come to know today. Throughout the ages agriculture and the environment have been engaged in an ever-changing dance.

In 1972 the United Nations established
World Environment Day to encourage
global awareness and action for the protection of the
environment.

The overall aim was to create a public awareness of the need to preserve and enhance the environment, but also to focus on the impact humans have on the environment.

Pressing issues such as deforestation, global warming, water pollution and biodiversity were brought to the discussion forums and industry and society have been put on the witness stand to account for their actions. And once again World Environment Day 2021, to be celebrated on 5 June



will call for urgent action to revive our damaged ecosystems. Ecosystems are defined as the interaction between all living organisms such as plants, animals and people, with their surroundings.

This includes nature, but also human-made systems such as cities or farms. From forests to peatlands, mountain areas to coasts, savannas to subtropical bush environments, or cities to farms, healthy ecosystems are crucial our survival.

The 5th of June will call on all of us to think about our actions and the impact that they have on the environment. In the next issue of the Agripen we would love to give feedback on the actions that our members, sponsors and friends will be undertaking this year to not only celebrate World Environment Day but in general, what you do to improve the environment.









Bright future for Sensako looms

The 2020 acquisition of Sensako by the multi-national agricultural company Syngenta bodes extremely well for the South African grain sector.

Sensako is a well-known seed company within the South African seed industry and has made its

mark over the years in breeding and research, as well as the production and supply of seed to the South African market. Recently, it once again, began to focus on the summer crops market and established breeding programmes for sunflowers and maize as well as a soybean cultivar testing programme.

Syngenta is globally recognised as a reputable company providing farmers with vigorous, strong and innovative hybrids, varieties and biotech traits as well as crop protection options to suit all growing conditions.

With the acquisition of an established brand such as





Sensako and the associated market share, Syngenta does not have to start up a local breeding programme and by combining efforts, germ plasm and knowhow, the timeline for the release of new varieties to the market is shortened considerably.

This pipeline of high-quality seed not only ensures better and more productive crops, but also plays an important role in mitigating risks associated with grain and cereal production such as disease, pests and climatic diversity, thus enabling farmers to grow food using less land, less water and fewer inputs.

With the acquisition of Sensako by Syngenta, Sensako now has access to the broad international bank of germplasm which will provide an enormous injection into the existing local breeding programmes. Sensako has also gained direct access to technologies such as Viptera

(insect resistance) in maize, AIR technology (herbicide resistance) in sunflower, and hybrid wheat technology.

"This transaction enabled two financially strong companies with established brands to combine into one seed company under the Sensako name ready to service the South African grain producer. We are well-aligned to address the challenges facing our farmers with welladapted hybrids and varieties across the grain spectrum."

"We will build on the strong history of both companies and honour the reputation of reliability and quality seed that was built over years," says Kobus Lindeque, Seed Commercial Lead Syngenta Africa.

The team plans to maintain the number one position in wheat breeding in the country under the leadership of Dr Francois Koekemoer, Director: Research & Development at Sensako, who was nominated in 2020 as one of the twenty most influential plant breeders in Africa by the Southern African Plant Breeders' Association (SAPBA).

Recently a group of agricultural journalists and members of Agricultural Writers SA visited Sensako at their research farm in Bethlehem. Du Preez de Villiers and Jennifer Roets shared some of their memories with us.





!Xhariep region "taste and see" the ARC Infruitec-Nietvoorbij products

Eunice Joubert

The first locally bred and developed raisin grape, olives, jams and wine, as well as products of the fledgeling local honeybush industry were available to taste and see by members of the !Xhariep Region of the Agricultural Writers SA at a recent Agriculture Research Council Infruitec-Nietvoorbij campuses media information day.

!Xariep members were also treated to a sensory wine tasting experience at the ARC commercial cellar, all adding to the experiential nature of personal visits arranged for the benefit of members and the publications they represent.

While all social distancing measures were maintained Dr Oluwafemi James Caleb, a Postharvest Research Team leader at the ARC Infruitec-Nietvoorbij campuses, welcomed !Xhariep region members to the media information session.

Andries Daniels, an ARC researcher on table and raisin grapes, presented how they developed SA's first local raisin grape variety with industry body Raisins SA, called Sundowner. The healthy Sundowner raisin samples was a hit amongst !Xhariep region members.

Phyllis Burger, an ARC table grape breeder, presented an overview of the grape breeding process at the ARC. that included the red seedless variety Joybells, which she developed over 10 years and the industry body South African Table Grape Industry (SATI) launched globally in Berlin not too long ago.

Cecelia Bester, an ARC researcher focusing on alternative crops, presented an overview of the honeybush industry. She also shared some highlights and success of the honeybush industry over the past 5 years.

The team at the ARC were able to identify most species of honeybush. "It is a product that grows in nature, we therefore have to be careful when cultivating it commercially", said Bester.

The agricultural media in attendance were able to see and taste a few samples of honeybush. Feedback from the !Xhariep members ranged from "very impressed" with a distinctive taste to "where do we buy it?" The ARC Infruitec-Nietvoorbij campus' media day, hosted in their commercial cellar, was arranged by Derusha Crank,







Cecelia Bester, with !Xhariep member, Louise Brodie from Lucentlands Media, at the honeybush information display booth.



!Xhariep region members listening to presentations in the ARC Infruitec-Nietvoorbij commercial cellar.

Public Relations Officer and supported by different divisions on the campus.

After the tastings and presentations, !Xariep members interacted with ARC representatives to gain further

information and to double check some of the figures and statistics shared with the group.

The !Xhariep region consists of agricultural writers from the Western, Northern and Eastern Cape who work for South Africa's

leading agriculture publications full-time or as freelance journalists. Some members are contributors of European agricultural publications where South African related agricultural news also feature from time to time.



!Xhariep region members enjoying the sensory wine tasting at the ARC Infruitec-Nietvoorbij commercial cellar.



Project a boost to South Africa's indigenous honeybush industry

Engela Duvenage

The local honeybush industry is receiving major support through a focused multi-year project implemented by the Agricultural Research Council (ARC).

It has already greatly expanded practical know how on the best practices available to the growing local honeybush industry. The project is part of ongoing efforts to strengthen the industry and its people, and to ensure that the indigenous teas being produced in South Africa are ultimately of such a high standard that it can compete on the tea markets of the world.

The project, stretching from April 2019 to March 2022, received R5 million in funding from the South African Department of Science and Innovation (DSI) in 2019. It is a follow-up of similar projects funded by DSI since 2010, interlinked with other ongoing research projects at the ARC. It builds on decades' worth of research that have been driven by

the ARC since the mid 1990s. With this kind of backing, honeybush tea is set to become an important niche crop that contributes to meaningful socio-economic development in rural areas, says Dr Aunk Chabalala, Director of the Indigenous Knowledge-based Technology Innovation Unit of the Department of Science and Innovation (DSI). He says such projects are broadening the scope of indigenous knowledge sharing about the use of South Africa natural resources and are providing a necessary platform for products.

"The project emphasises traditional community development and the establishment of small, micro and medium enterprises (SMME) related to honeybush tea," says Dr Chabalala.



Prof Lizette Joubert is the project leader responsible for product research as part of the DSI/ARC Honeybush Project. She is based at the ARC Infruitec-Nietvoorbij in Stellenbosch. Photo: Engela Duvenage



As part of the DSI/ARC
Honeybush project, Dr Cecilia
Bester oversees research
at ARC Infruitec-Nietvoorbij
in Stellenbosch focusing on
plant breeding, cultivation
and development and training
of traditional communities.
Photo: Engela Duvenage





BACKGROUND INFORMATION Honeybush: did you know?

- Honeybush tea is produced from some of the 23 species of Cyclopia plants that grow naturally in South Africa's fynbos region.
- These species are all indigenous to South Africa's Western and Eastern Cape provinces and grow nowhere else in the world.
- Indigenous people living in these areas were probably the first to brew a drink for its medicinal properties using the crushed stems and leaves from wildgrowing honeybush plants.
- In the industry's early days, plant material was harvested from the wild and then processed. Small-scale commercial farming started in the 1990s in response to efforts by Dr Hannes de Lange of SANBI to create the interest of commercial farmers. Research done predominantly by the Agricultural Research Council (ARC) about best practices to propagate, cultivate, farm and processing followed. The first processing trials started in 1994.
- The tea is brewed from plant leaves and stems.
- The tea is naturally caffeine free. It has a low tannin content and is rich in antioxidants. These characteristics add to its status as a healthy beverage.



Such is the appreciation from the industry itself for the work driven by the ARC that two of its staff members, Prof Lizette Joubert and Dr Cecilia Bester, were named as honourary members of the South African Honeybush Association Tea Association (SAHTA) in 2019.

SAHTA chair Mr Eugene Smith praised the DSI/ARC honeybush project and its partners for the ongoing work being done to strengthen the fledgling industry. "All research done on honeybush at the ARC is somehow of practical help to the industry," says Smith. "Much effort and time have been invested over the years in training traditional communities who are involved in the honeybush industry."

Training and community development

The DSI/ARC Honeybush Project among others provides training to traditional communities in rural areas where honeybush is cultivated and/or harvested.
As partners of the project ARC staff provides one-to-one support to five SMMEs. Sonskyn Heuningbos (Haarlem, Western Cape), Driefontein Heuningbos

(Friemersheim, George, Western Cape), Kuyasa Amamfengu (Kareedouw, Eastern Cape), Clackson Heuningbos (Eastern Cape) and Thornham Heuningbos (Eastern Cape) serve as vehicles for the commercialisation of the ARC's honeybush genetic material.

"We are developing seed

INFO: Good to know too

- Five SMMEs around Groot Brak near
 George, and Haarlem and Kareedouw in the Langkloof region are financially supported and receive expert advice from ARC staff members as part of the DSI/ARC Honeybush Project.
- 2 MSc students and 2 PhD students have already graduated from various universities in South Africa thanks to funding received through the DSI/ARC Honeybush Project. Another 2 postgraduate students are currently being funded.







Honeybush seed



Seed orchards, nurseries and honeybush tea plantations are developed in rural communities as part of the DSI/ARC Honeybush Project. Photo: Cecilia Bester/ARC

orchards, nurseries and honeybush tea plantations in these communities," says Dr Bester.

At the end of 2020, a honeybush propagation and nursery management course was held at Thornham, near Storms River Bridge. Such was the interest from far and wide that all seats were taken it within a week.

The course was presented by Dr Cecilia Bester, project manager of this project, whose research at ARC Infruitec-Nietvoorbij focuses on plant breeding, cultivation and development and training of traditional communities.

About the importance of supporting nursery owners, Dr Bester says: "Having a constant supply of seedlings and cuttings available to be planted on participating farms is essential

to the growth and sustainability of the honeybush industry, and a most important part of the value chain. In this, nurseries play an extremely important role.

The better these are managed, and the more know how that nursery owners have, the better. Even though times may be tough in the industry, it is important that we are prepared for when the market turns and have plant material available."

Research

To strengthen these endeavours, the ARC and its research partners focus on cultivation and product research. This includes studies about producing value-added food products and nutraceuticals based on honeybush extracts. The current project includes research partners from various research entities and universities in South Africa, such as Stellenbosch University (SU), Cape Peninsula University of Technology (CPUT), Tshwane University of Technology (TUT) and the South African Medical Research Council (MRC).

Together they strive to provide

advice on best practices to farmers, nursery owners, processors and marketing agents that are grounded in solid scientific evidence. Studies are conducted by researchers and postgraduate students in the fields of among others horticulture, soil science and food science.

Their efforts contribute to knowledge sharing and human capacity building within the indigenous knowledge space and agricultural sector in South Africa. Aspects such as tea quality and standards in tea processing are investigated, as well as enhance propagation and irrigation methods. In light of climate change, studies are also done to identify species that are more drought-tolerant, while the nutraceutical potential of the plant is also investigated.

On a practical level, funding has been made available by the DSI/ARC Honeybush Project to compile a manual and hold workshops for industry role players such as processors, blenders, packers and marketers on how to use a new standardised quality grading system to evaluate





honeybush tea in a standardised and consistent manner.

The grading system itself was developed by Dr Brigitte du Preez (who received her PhD in Food Science in December 2020 from Stellenbosch University), Prof Lizette Joubert of the ARC and Ms Nina Muller of Stellenbosch University through funding from the Western Cape Department of Agriculture's Alternative Crop Fund.

"The aim throughout is to ensure that honeybush tea of a consistent good quality reaches the consumer," says the project leader responsible for product research, Dr Lizette Joubert of the ARC Infruitec-Nietvoorbij in Stellenbosch. Joubert is among others an expert on processing and quality aspects related to honeybush tea.

"The combined efforts of researchers are adding value to the crop and are boosting the development of new, value-added honeybush products for local and international markets.

This niche tea industry has great potential, especially if stronger markets for products can be developed. It also has potential as a nutraceutical, and that is why we are also doing research to identify selections from the honeybush breeding programme that could deliver high levels of bioactive compounds," she adds.

LINKS:

- Visit the DSI/ARC project's dedicated webpage: https://www. arc.agric.za/arc-infruitecnietvoorbij/honeybush/ Pages/default.aspx
- Meet the researchers behind the project: https://www.arc.agric.za/ arc-infruitec-nietvoorbij/ honeybush/Pages/ Research-partners-andtopics.aspx

Knowledge sharing

Dr Bester regularly shares some of the findings about cultivation methods coming out of research projects driven by the DSI/ARC Honeybush Project with industry partners.





Through her PhD research, Ms Gugu Mabizela of the Tshwane University of Technology and the Agricultural Research Council found that the best quality Cyclopia genistoides and Cyclopia subternata (two species commercially farmed with) are produced when the plants are harvested in summer. Photo: ARC





The combined efforts of South African researchers are adding value to the crop and are boosting the development of new, value-added honeybush products for local and international markets.

"It is important for farmers to know which *Cyclopia* species are the best in terms of productivity, vigour and adaptability under mass planting conditions, and which when being processed delivers products with the best sensory qualities," she adds.

Recent PhD research by Dr Jennifer Koen done at TUT and ARC on the characteristics of honeybush pollen, flowers, seeds and pollination for instance highlighted that the flowers of all species are not morphologically the same, and that and the timing for pollination is critical. She found that pollen is still viable after being frozen for two years, which is a huge benefit for the breeding of honeybush.

She also tested various sugarbased mediums and basal salt formulations that can be used successfully in embryo rescue and in vitro seed germination.

Through her PhD research, Ms Gugu Mabizela of TUT and the ARC focuses on identifying *Cyclopia* species and optimum harvest time to produce quality tea. She found that the best quality *Cyclopia genistoides* and *Cyclopia subternata* (two species commercially farmed with) is produced when the plants are harvested in summer and autumn, respectively. Summer harvesting is more practical if artificial drying is used during processing.

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Oupa vestig tradisie

MEMBER NEWS



Making fresh connections

Agricultural Writers SA attending the PMA's Fresh Connections.



From the left: Clinton Swart, Jennifer Roets, Lita Sabio and Hugo Lochner.





IFAJ NEWS

Revised Schedule for IFAJ 2021 eCongress

The dates for IFAJ's virtual e-Congress—including the Delegate Assembly—have been moved to 23-25 August 2021 (previously scheduled for 21-23 June).

The change in schedule allows members to cover the Alltech ONE Conference, which was rescheduled due to technical issues for the same week as eCongress, and also raises the possibility that IFAJ's application to the UK government to establish a charitable foundation will be completed by the rescheduled delegate assembly.

Although Alltech did not ask us to move our meeting, we want our members to be able to gather stories as well as fully participate in IFAJ activities, and this year's virtual format allows us to be more flexible than usual. Our hope is that the change in schedule will allow our eCongress to be even more interesting and informative.

We appreciate the flexibility and patience of our members, and we are confident that the virtual eCongress will be worth the wait.

Time (GMT)	Monday 23 August 09h00 – 16h30 GMT	Tuesday 24 August 09h00 – 11h30 GMT	Wednesday 25 August 14h00 – 15h30 GMT
09h00	Speaker - Global Trade	Delegate Assembly IFAJ's online annual meeting Presidium Reports Governance Committee IFAJ Foundation Future Congresses Other Simultaneous translation into French and Spanish (if demand warrants)	
10h00	Virtual Tour - Burkino Faso		
11h00	Panel Climate Change & Agriculture		
12h00	Panel - Press Freedom		
13h30	Lunch - social break		
14h00	Virtual Tour - Belgium		A Toast to Denmark - Presentation on the 2022 Congress to be held in Denmark Star Prize Ceremony - Presentation of Star Prize winners - Social hour
15h00	Panel The Next Generation - Engaging Youth		
16h00	Speaker		
16h30	Wrap up		





BP skaf eerste Fendtstroper in SA aan

Boer van die Jaar 2011, BP Greyling, het die eerste Fendtstroper wat in Afrika verkoop is, op sy plaas Langfontein by Wakkerstroom in ontvangs geneem.

Hy boer op groot skaal met mielies (vir graan en kuilvoer), raaigras, beeste en skape en besit ook voerkrale vir beeste en skape, 'n silo-en-drogingkompleks, saadaanleg en fabriek wat veevoer vermeng. ■

Foto: Charl van Rooyen



Innovasie bring sukses

Leon Louw

'n Sauvignon blanc van Groote Post Vineyards naby Darling het gewys 'n mens kan nuwe inovasie inspan om 'n produk baie suksesvol te bemark sonder dat die landgoed se handelsnaam prominent op die etiket pryk.



Nic Pentz (links) van Groote Post by Lukas Wentzel, die wynmaker.

Sy uitstekende Seasalter (90% sauvignon blanc en 10% Semillon) is 'n relatief nuweling wat die landgoed se relatiewe bekende sauvignon vinnig ingehaal en verbygesteek het in gewildheid. Dis in 2015 geskep nadat die wynmaker Lukas Wentzel, wat reeds 21 oesjare op Groote Post deurgemaak het, 'n paar jaar lank eksperimenteer het met druiwe van die plaas se verskillende wingerde teen die suidelike hange van die Darling-heuwels, net 7 km van die see af.

Die Seasalter het onlangs getoon van watter gehalte hier gepraat word toe dié wyn se oesjaar van 2020 by die jaarlikse internasionale Concours Mondial du Sauvignon in Brussel met 'n goeie medalje bekroon is. Dit het ook 'n goue medalje by die Michelangelo-wynkompetisie gewen. Die 2019 oesjaar se wyn het daardie jaar in FNB se Sauvignon Blanc Toptienkompetisie opgeëindig.

Nic Pentz, wat die boerdery saam met sy pa, Peter, bedryf, het onlangs met 'n besoek van Landbouskrywers SA se !Xhariepstreek vertel dat hy aan die naam gekom het toe hy die Engelse dorpie Seasalter in Kent besoek het. Die naam het by hom aanklank gevind en hy het daar en dan besluit dis so kompak en gevat dat hierdie suavigon blanc daarna genoem moet word – en sonder om Groote Post prominent op die etiket daarna te hê. ■





FARMER NEWS

Van Loveren bowls over wine judges

Van Loveren's achievement reflects renewed focus on terroir selection and quality driven vineyard practices.



Van Loveren Family Vineyards has bowled over the judges at South Africa's National Wine Challenge/Top 100 SA, emerging as one of this year's most successful performers.

No less than 10 of the familyowned producer's wines were among the top echelon of winners, one of them also claiming the title of Grand Cru National Champion Best in Class. "Full credit for this achievement must go to the vineyard and winemaking teams," says Van Loveren Phillip Retief. "It is wonderful to see changes made in the Van Loveren vineyards play out in results like these."

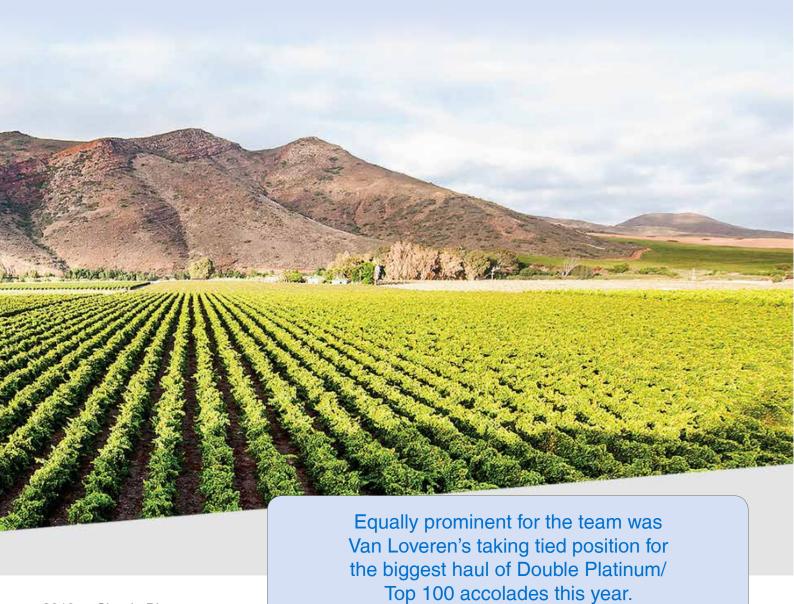
"The awards attest to a continued commitment to making quality wines that surpass consumers' high expectation. That these come just weeks after the launch of Van Loveren's new packaging, as part of our 40-year brand celebration, lends even more significance to the occasion," he says.

Topping the list of awards as Best in Class Champion was the Retief Reserve Cape Blend White





FARMER NEWS



2019, a Chenin Blancdominated wine that was blended with Colombar and Chardonnay. It shows gentle aromas of honeysuckle, lemon peel and guava followed on the palate by soft citrus fruit, honeydew melon, crisp apple and a long, elegant finish. It is anticipated to continue to develop in bottle to about eight years from vintage. ■

There were five of its wines in this category:

- · Christina Cabernet Sauvignon 2019;
- Christina Chardonnay 2020;
- Christina Methode Cap Classique Brut Rose 2018; and,
- Retief Reserve Cape Blend Red 2019.
- It's Double Gold stars comprised the:
- Christina Syrah 2018;
- · Christina Cap Classique Brut NV;
- · Zandvliet Chardonnay 2020; and,
- Kalkveld Shiraz 2017.





CORPORATE MEMBER NEWS

The Threat of Unregistered Plant Protection Products

Dr Gerhard H Verdoorn, CropLife South Africa, 082 446 8946 gerhard@croplife.co.za

Humankind is slowly moving towards greener living which should be more compatible with the natural environment. Fossil fuels are being frowned upon, agricultural production by conventional methods is no longer the flavour of the month and pressure is mounting against "chemicals", while very few people realise that the Universe is one enormous chemical factory.

There is nothing that is not chemistry. Protagonists of a "greener world" want all "chemical pesticides" to be replaced by natural and biological pesticides. It sounds great, but those very individuals express their ignorance by preaching that natural and biological is safer than chemical and man-made.

Fact is that many of the current chemical pesticides that are widely used are synthesised by none other than Mother Nature. Humankind developed technology to beneficiate such substances from plants, yeasts, bacteria and fungi for plant protection. The question is, where

do they fit into plant protection? How effective are they? And do they need some form of regulation?

Efficacy, safety and regulatory requirements

There is a very bold tendency in the biological and natural pesticide arena to claim super efficacy against a wide range of target organisms. The truth is that biological pesticides are effective when applied within a particular set of climatic conditions. When these conditions are not optimal, they reduce the efficacy of the substances, often to disappointing levels which leads to a distrust in biological and natural plant protection products.

A factor that plays a very important role in the performance of biological and natural plant protection products is the quality of the products. The quality is determined by the strain of the live organism, its purity and the matrix or formulation in which it is offered. It is very easy to make a claim about an organism's efficacy, but a totally different story to prove its quality. The same goes for natural chemicals that are marketed as plant protection products. There are

various factors, summarised below, to consider when working with natural and biological plant protection products.

The species, sub-species and strain of the organism

Many of the biological products that are currently registered as plant protection products are selected from a range of sub-species and most often a particular variety or strain of that sub-species. This is a critically important aspect because biological organisms produce their own endotoxins that kill the target organisms.

The purity of plant extracts that contain natural chemicals used as plant protection products

Many plants such as the neem tree and chrysanthemums produce very useful secondary metabolites that are proven natural insecticides. The extraction of these active ingredients from the plant oils requires great skill to ensure the final product is of high purity and does not contain harmful substances. It is known that neem oil that is not properly purified may contain aflatoxins, some of which are highly carcinogenic.





CORPORATE MEMBER NEWS



The quantity of the units in the matrix or formulation

Some biological organisms are measured in international units per milligram and not in mg/kg or mg/l as for the classic chemical pesticides. Poorly cultured yeasts, bacteria and fungi may not have the optimised number of international units and will therefore not produce the expected results.

The stability and shelf life of the matrix or formulation

Formulating and packaging a biological plant protection product is more onerous than a chemical plant protection product. Since they are live organisms, they must generally be formulated in highly sterile conditions and packed in special hermetically sealed packaging to prevent oxygen and moisture from destroying them, while packaging must block out light to prevent solar decomposition.

Regulatory requirements

The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947) does not differentiate between synthetic chemicals, natural chemicals or biological organisms when it demands that all such substances and organisms are registered.

The definitions of an agricultural remedy (pesticide or plant protection product) in section 1 in fact specifies any chemical substance or biological remedy or any mixture or any combination of a substance or remedy intended or offered for.... It is evident from this definition that the Act is overarching over all substances or organisms that are perceived to be plant protection products. Section 7 prohibits the sale of any agricultural remedy unless it is registered under the Act.

Unregistered biological and natural pesticides

Many manufacturers of biological plant protection products market their products without valid registration. This means that their products have not undergone the rigorous testing required by the articles and regulations of Act No. 36 of 1947 for, amongst others, efficacy, crop safety, human safety, environmental safety and stability.

A person who buys and applies such unregistered biological products has no idea whether the product is what the manufacturer claims it to be, has no guarantee that the product will perform as expected, no idea whether the product contains harmful contaminants or impurities such as aflatoxins, has no idea what the shelf life of the product is and basically puts his crop, and the consumer who buys and eats the produce, at tremendous risk.

The purpose of registration is for the regulatory authorities at the Department of Agriculture and Department of Health to ascertain whether the biological product is effective, but most of all whether it holds any risk for human health and the environment.

Unregistered biological organisms are sometimes smuggled into the country from abroad, while the Directorate of Plant Health requires that all such foreign organisms be put through a risk



CORPORATE MEMBER NEWS

analysis programme. The world has seen what a virus like the latest SARS CoV-2 that caused the Covid-19 pandemic can do.

To think that biological is always safe may be a fatal thought if the organism that you work with has been identified incorrectly. All facilities that work with microbes must be registered under the Non-proliferation of Weapons of Mass Destruction Act, 1993 (Act No. 87 of 1993) as a measure to govern the cultivation and use of microbes. It sounds like an overkill, but biologicals of unknown identity can have a devastating effect on people and the environment.

The wonders of properly manufactured and registered biological plant protection products

Many South African and international companies offer registered biological plant protection products for agriculture and even for home garden use.

These products have undergone rigorous testing and are formulated to give excellent control of plant pests. It helps food producers to move away from total chemical pest control to integrated pest management and offers consumers an assurance that food safety is as important to producers as it is to consumers.

It does, however, demand a mind shift to adapt to the requirements for using biological plant protection products effectively, but the rewards are vast.

One of the main hurdles in the agricultural mindset is the demand for immediate results: biologicals do not act as fast as hardcore synthetic chemicals, yet upon being in contact with the target organism, they mostly terminate feeding which means the crop is saved immediately, although the target only dies a few hours or days later.

Signs and symptoms of unregistered biological plant protection products

Any plant protection product that is offered for sale in South Africa must have a registration number starting with a capital L followed by four or five numbers, e.g. L1234 or L12345, and have the exact scientific name of the organism, plus its concentration

depicted as IU per mg. If this information is lacking, the red flags are already flapping in the storm. If a biological remedy's manufacturer makes vast claims about efficacy against virtually all plant pests, it is a blatant false claim because biological plant protection products, like their chemical counterparts, can never be effective against all plant pests.

The manufacturers of unregistered biological products often claim their products are non-toxic and safe for human health and the environment. Be wary of such claims. If it is of this nature, then why is it not registered to substantiate that claim?

Another false claim is that the unregistered biological product can replace all chemicals. So, if the biological replaces all chemicals, what about the endotoxins that are produced by the unregistered biological product? Are those not chemicals?

Producers should be vigilant when it comes to using crop protection products of any nature. If an unregistered biological product is used, be sure to know that your produce is likely to be rejected by the markets and consumers.

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Protect our pollinators by ensuring responsible use of crop protection products. Visit www.croplife.co.za for more.

CropLife
SOUTHARRIES CUID-AFRIKA





Bonnievale Sauvignon Blanc 2021 is 'Een van die Beste'

Bonnievale Wines stel hul nuwe oesjaar The River Collection Sauvignon Blanc bekend en beskryf dit as 'een van die beste' wat hulle nog opgelewer het. 'n Skouspelagtige vertoning van aromas en geure van tropiese vrugte gekombineer in die fynste balans – 'n beklemtoning van die uitmuntendheid van Bonnievale.

"Ons het die afgelope paar jaar met meer kennis en wysheid die bestuur van die wingerd aangepak en dit het vrugte afgewerp - dit weerspieël volharding, innovasie, samewerking en geloof," meen hoofwynmaker Marthinus Rademeyer, wat reeds 11 oeste by Bonnievale Wines onder die knie het.

"Kwaliteit is die hoeksteen van ons wynmaakproses, wat verseker dat wynliefhebbers die produk kan geniet. Wynmaak verg nie net deurlopende innovasie nie, maar ook 'n visie wat ons met ons produsente deel."

In die wynmaakproses word wingerde geprioritiseer en blokke wat goed presteer word afsonderlik hanteer. Spesiale aandag in die versorging van wingerd word noukeurig toegepas en met elke nuwe seisoen uitgebrei.

Die span wynmakers van Bonnievale het 'n groot voordeel omdat hulle uit 'n wye verskeidenheid van die beste druiwe kan kies. Die wynkelder is geleë in die uitgestrekte en vrugbare vallei wat gekenmerk word deur die Breërivier, golwende heuwels en bergreekse.

Die wingerde lê verspreid tussen verskillende mikroklimate, hoogtes en aspekte wat - as dit gekoppel word aan die regte klone en variëteite - uitsonderlike vrugte kan produseer.

"Die vrugte wat gebruik is vir die produksie van die wyn is uit 'n koeler deel van die Bonnievalestreek. Ons is ook geseën met 'n suidoostelike bries in die middae wat die druiwe afkoel," sê Rademeyer. "Saam met die terroir dra die manier waarop die produsent die blok bestuur ook by tot stadige, optimale rypwording. Dit behels die

vestiging van die perfekte mikroklimaat om te verseker dat die vrugte in die regte hoeveelheid lug en lig bedek word."

Die aanbevole verkoopprys van die River Collection Sauvignon Blanc 2021 is R61,00 per bottel en saam met ander wyne wat deur die wynkelder vervaardig word, is dit landwyd beskikbaar en kan bestel word by die aanlynwinkel by www. bonnievalewines.co.za. Die wynkelder self is geleë aan die buitewyke van die dorp Bonnievale, vandaar die naam van die kelder. Die kelder is 125km oos van Kaapstad geleë.

Vir meer inligting oor Bonnievale Wines, besoek die webstuiste, skakel by 023 616 2795 of epos: info@bonnievalewines.co.za.

Gesels saam op Twitter @bonnievalewines; Instagram, bonnievalewines; en, Facebook (https://www.facebook.com/ bonnievalewines/).





South Africa's apple and pear production areas experienced excellent growing conditions during the current season and is set for a record export crop. Apple exports are expected to rise by five percent year-on-year to 38,4 million 12.5kg equivalent cartons. Pears are due to grow by six percent to 17.9 million 12.5kg equivalent cartons, which are about a six percent increase from last year.

This is according to Hortgro's
Trade and Markets Manager,
Jacques du Preez, who
presented at PMA South Africa's
live broadcast in partnership
with Beanstalk.Global on 20
May. Other industry experts
who joined the conversation
were Awie de Jager, Managing
Director at Delecta Fruit, Gert
Marais, Head of Pome Fruit at
Delecta Fruit, Tracy Davids,
Manager: Commodity Markets
and Foresight at Bureau for Food

and Agricultural Policy (BFAP) and Xavier Murray at Cape Five Export.

Pome fruit is the fourth biggest contributor to South Africa's agriculture exports after citrus, wine and grapes and an important contributor to employment. The main producing areas are Ceres, Elgin, Grabouw, Vyeboom, Villiersdorp (all in the Western Cape) and the Langkloof region in the Eastern Cape.

The total production area for apples in 2020 was 25,320 hectares, and for pears 12,925 hectares. Production in the northern part of the country is small compared to these regions.

The industry is exported orientated, with approximately two-thirds of apples and one-

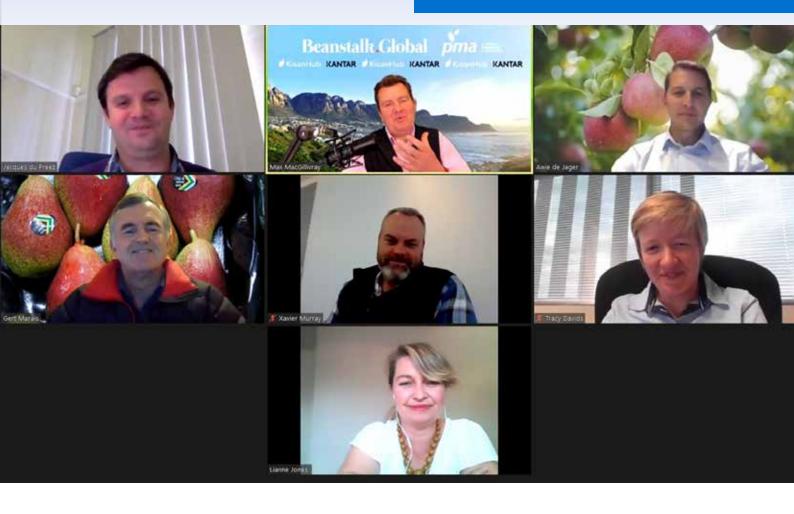
third of pears produced being absorbed by the export market. Over the last 10 years, the industry has seen a move away from apple exports to Europe and Russia towards Africa, the Far East and Middle Eastern markets percentage-wise, Du Preez said.

According to Davids, Europe will always be an important market for the industry. However, it might not be the one where we will see the most growth in the future. Looking at income growth, population growth, and expectations, Eastern countries will also be important. The industry has seen a lot of growth in exports of apples into Africa, which has a growing consumer hase

BFAP's outlook shows a slow-down in the expansion of planted area. Though, strong growth in production volumes is expected due to higher density plantings, new varieties with high yielding potential, more young orchards coming into production and new technology.







To remain competitive, Marais said, "the industry must take advantage of the country's unique production climate and new technology that could transform the industry. It is important to understand the different preferences of different markets. For example, in Europe, pears are more relevant than apples. We need to play the strengths of each category,"

"For further growth in exports, we need to produce fruit that consumers can find nowhere else in the world. The eating quality of locally produced fruits is different for the rest of the world because of our unique latitude, day length and warm summers.

This offers us the opportunity to widen the window for the opportunity in Europe again."

Marais said the whole apple basket is currently dominated by a few varieties of which the eating quality are not always good. "I think this could change in the near future as we have very exciting new planting material and varieties that can produce fruit that lasts longer and eats well."

"In the early nineties, South Africa took the lead in bi-coloured pears production in the world with the introduction of Forelle, Rosemarie and Flamingo. Cheeky followed later, and Celina (QT) was added to the basket three years ago. Forelle is susceptible to the fire blight plant disease, and we are fortunate with our climate not conducive to fire blight. Fire Blight causes Forelle trees to die after it was planted in many of the pear production countries of the world," Marais said.

"There is a huge focus on sustainable and environmentally friendly farming practices, especially for British and European consumers," said De Jager. "They want fruit that is fresh, safe and healthy."

"South Africa has some of the best producers in the world, with a solid base that has been established over many years and a long history. We must build on that and be the first choice for trade and consumers alike," Du Preez concluded.





AWARD CATEGORIES:

The South African deciduous fruit industry annually presents awards for outstanding performance in agriculture. The awards are given to people of excellence that made a difference in their various fields of work. 2021 will be the 46th time these awards are made.

Deciduous fruit includes apples, pears, apricots, peaches, nectarines, plums and prunes, cherries, table grapes, and dried grapes.

The 2021 award ceremony will be hosted mid September. The format of the event is Covid dependent. Nominations close 20 July 2021.

> THE DFI AWARDS ARE SPONSORED BY

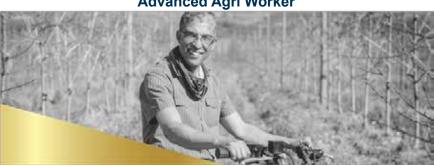




Specialist Agri Worker



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Innovation (Research and Technology)



New Entrant



Front Runner



Partners in hosting the annual Deciduous Fruit Industry Gala evening and awards:











Contact Thea van Zyl for more information: thea@hortgro.co.za 021 870 2900 / 083 642 5342





Agri Wes-Kaap JONGBOER VAN DIE JAAR 2021

Die 32-jarige Alexander Gibson van Ceres in die Witzenberg Vallei is Woensdagaand 19 Mei tydens 'n glansgeleentheid in die Paarl as die Agri Wes-Kaap Santam Landbou Jongboer van die Jaar aangewys. Hy sal die Wes-Kaap later vanjaar by die nasionale Agri SA Toyota SA Jongboer van die Jaar kompetisie verteenwoordig.

Alexander, wat 'n B.Agric graad aan die Universiteit van Stellenbosch behaal het, boer die afgelope 11 jaar op Doornkraal Agri met 300 ha appels en 110 ha pere.

Hy was een van vyf deelnemers wat vanjaar om die titel as beste jongboer in die Wes-Kaap meegeding het. "Ek glo as jy vanaand hier sit as 'n deelnemer in die Wes-Kaap, in die Suid-Afrikaanse omgewing en demografie van landbou, dan het jy in elk geval klaar gewen," het hy tydens sy aankondiging as wenner gesê.

PF Theron, voorsitter van die Agri



Alexander Gibson van Ceres is 'n glansgeleentheid in die Paarl as die Agri Wes-Kaap Santam Landbou Jongboer van die Jaar aangewys.

Wes-Kaap Jongboerkomitee, het gesê die paneel beoordelaars het weer die jaar 'n baie moeilike taak gehad om 'n wenner uit fenominale deelnemers te kies.

"Die kompetisie wys elke jaar vir ons dat die landbou se toekoms in goeie hande is, maar dit strek verder as net voedselsekerheid. Die bydrae wat die jongboere in hulle gemeenskappe maak en die waarde wat hulle toevoeg, is wat van ons jongboere 'n bate vir die land maak," sê hy.

Die ander deelnemers was:
Jo-Andra Greegory Cloete van
Joostenbergvlakte
Derec Giles van Uniondale
Floris Steenkamp van Ceres
Kleinjan Teubes van Vredendal.







Vrystaat Landbou JONGBOER VAN DIE JAAR 2021

Doug Osler (39) van die plaas Fourieshoek in die Fouriesburgarea, is onlangs as Vrystaat Landbou se 25ste Jongboer van die Jaar aangewys. Osler, wat die afgelope 16 jaar deel is van 'n familieboerdery waarin hy 25% aandele besit, glo dat uitdagings en terugslae as leerkurwe dien en dat dit ook bydra tot die ervaring wat hy as 'n 'unieke beroepskeuse' beskryf.

Osler vertel dat hy hoofsaaklik verantwoordelik is vir die appelproduksie en –pakhuis van Lone Tree Farms.

Benewens sy betrokkenheid by georganiseerde landbou as lid van Fouriesburg landbouvereniging, is Osler ook voorsitter van Highveld vrugteproduseerders en dien hy ook as direkteur op die produsenteraad van Hortgro Pome.

Volgens prof Pieter Fourie, sameroeper van die beoordelaars en Hoof van die Departement van Landbou by die Sentrale Universiteit van Tegnologie (SUT), word finaliste beoordeel in onder meer toekomsbeeld, begroting en finansies, produksie, bemarking, instandhouding, personeelbestuur en gemeenskapsbetrokkenheid. Fourie is van mening dat die huidige generasie jongboere oor leierskap en innovering beskik en sê dat hy hoopvol is oor die toekoms van landbou in die hande van sulke knap jongmense. ■



Doug Osler in sy appelboord tydens beoordeling vir VL se Jongboer van die Jaar.





Fruit industry strengthened by new SU Research Chair

Leaders in the South African fruit industry believe that the creation of the new Post-Harvest Physiology Research Chair in Deciduous Fruit at Stellenbosch University will substantially improve know how about the handling of deciduous fruit, and ultimately be to the benefit of both producers and consumers. The activities of the Chair are being led by Dr Elke Crouch, a senior lecturer in the Department of Horticultural Science at Stellenbosch University (SU).

Dr Crouch focuses on ways to eliminate various physiological disorders which occur when apples and pears are stored or ripened after picking. This includes internal discolouration and blemishes on the peel of the fruit.

She is searching for ways to retain the quality of fruit post-harvest until they are ready for consumers to enjoy. Her work is also increasingly focused on understanding how conditions being experienced while fruit are still on the tree affect their quality.

"I enjoy finding out why something goes wrong, and to find solutions to ensure that it does not happen again," Dr Crouch explains the driving force behind her research.



Dr Elke Crouch leads the new Post-harvest Physiology Research Chair in Deciduous Fruit at Stellenbosch University.

Since 2002 Dr Crouch has been appointed in a research position in the Department of Horticultural Science focusing on postharvest matters. The post has been funded by the fruit industry since the 1980s, through the Molteno and Lombardi Trusts. Thanks to further financial support from Hortgro, the industry body for deciduous fruit in South Africa, the research chair could be established this year.

Dr Crouch sees the chair not only as an opportunity to do important research, but also as a chance to train future industry leaders and to ensure greater interaction with the fruit industry and other researchers.

"The future of research increasingly lies in working across borders. We must work together in our effort to find solutions to the impact that climate change is having on fruit quality, for example, and in the handling and analysis of large data sets in this regard," she says.

Value to industry

"Given the high quality of practical research which Dr Crouch has delivered to the fruit industry over







Attending the launch of the new Post-harvest Physiology Research Chair in Deciduous Fruit, led by Dr Elke Crouch (third from left) at Stellenbosch University were (from left) Mr Linde Du Toit (Hortgro Science advisory council member and Pome Producer's Council board member); Mr Hugh Campbell (Hortgro Technical: General Manager); Prof Wiehann Steyn (Hortgro Science: General Manager); Mr Nicholas Dicey (chairman of Hortgro and chairman of Hortgro Pome) and Prof Karen Theron (Chair in Applied Pre-harvest Deciduous Fruit Research at Stellenbosch University). Photo: Engela Duvenage

the years, it was an easy decision to support the establishment of this research chair," says Prof Wiehann Steyn, general manager of Hortgro Science, who added that he hopes the position will strengthen her position as a senior academic.

He describes Dr Crouch as a passionate, detailed researcher "who always gives 110%. In addition, she is a great lecturer who has inspired a generation of students to follow careers in post-harvest aspects of the fruit industry."

"Post-harvest physiology is a critical field of knowledge, but one within which there is little local capacity. Through its support of the Research Chair, Hortgro hopes to ensure that sufficient capacity is developed and that the necessary expertise and knowledge is available to help industry address troublesome industry problems," says Prof Steyn, who is also an extraordinary associate professor at the SU Department of Horticultural Science. "Cooperation with knowledge partners like SU through combined funding of posts and opportunities certainly enhances our goals regarding such initiatives." "The research chair in the Department of Horticulture is an absolutely great example of user-inspired basic research being put into action.

This partnership between an important sector such as the fruit industry and SU supports basic and applied research and helps to meaningfully and significantly enhance knowledge in a specific field," says Prof Eugene Cloete, SU vice rector: research innovation and postgraduate studies.



Mealiness and internal browning

Over the years Dr Crouch, her postgraduate students and industry partners have increasingly done valuable work for the industry.

This includes many research reports containing practical guidelines, such as on the correct methods to follow to best store 'Cripps Pink' and 'Granny Smith' apples for long periods in controlled-atmosphere cold stores. It also entails aspects such as how much shade 'Forelle' pears can receive before mealiness starts to develop in the fruits

Through her own PhD work, Dr Crouch answered questions on how mealiness develops in 'Forelle'. This was followed by research on how to prevent the physiological condition. Dr Crouch has since helped to write guidelines for the harvesting and post-harvest management of apple cultivars like 'Fuji' and 'Cripps Pink' to decrease internal discoloration or browning.

"It's always an unpleasant surprise when you bite into an apparently perfect fruit just to discover that the flesh inside has turned brown. In addition, it has an unpleasant taste. This could cost our industry dearly, both in terms of loss of income as well as loss of reputation in the market," Prof Steyn explains the importance of related research.

Thanks to funding by Hortgro, Dr Crouch's team is currently also doing research on the occurrence of superficial scald on cultivars like Granny Smith apples. They are also searching for ways to control the development of such blemishes. Although the damage is purely cosmetic and does not affect a

More about Dr Elke Crouch

- She obtained the degree BScAgric (Horticulture) in 1999 from the University of Pretoria, an MScAgric (in 2002) and a PhD degree (in 2011) from Stellenbosch University.
- She lectures in post-harvest physiology and technology to final year students in the degree programme BSc (Agric) Horticultural Science.
- Dr Crouch has advised the industry since 2003 through her involvement as member of initiatives such as the Hortgro Science Peer Working Group, the Packhouse Action Group and the Store-It Group.
- She serves on the executive committee of Pink Lady SA.
- She previously served as board member of the South African Society for Horticultural Sciences.
- Dr Crouch is the main organiser of the 14th International Pear Symposium, planned for 2023 in Stellenbosch.

fruit's taste, consumers tend to shy away from them. Her team is also investigating the optimal conditions under which fruit in must be stored to prevent post-harvest losses using the latest controlled-atmosphere cold store technologies.

She launched the first shortcourse in post-harvest physiology available to the South African fresh produce industry in 2008. This year it takes place between 6 and 8 July 2021.

According to Dr Esmé Louw, chairperson of the SU Department of Horticultural Science, the Research Chair provides additional career opportunities to Dr Crouch, as it allows her to attract strong postgraduate students to her research group, and to collaborate with a wider range of research teams worldwide.

Dr Crouch is already collaborating with the leading post-harvest research team of the University of Leuven in Belgium on a project to better study gas diffusion in apples, and thus better understand and address various post-harvest defects in fruit.

Among her local partners are colleagues
Stellenbosch University, ExperiCo Agri-Research
Solutions, the Agricultural Research Council and the
University of the Western Cape. ■





Medal for agronomy study on the use of lime with barley, canola

A former MSc student in agronomy at Stellenbosch University (SU), Ruan van der Nest, is a co-recipient of the prestigious Junior Captain Scott Memorial Medal this year. It is awarded annually to the best MSc student at a local university by the South African Academy for Science and Arts. This year students in botanical science were eligible.

Entries received were of such a high standard that the Academy decided to make two awards rather than one, as is the norm. Van der Nest's co-recipient is Wiku Meyer of the University of the Free State.

Van der Nest completed his MSc Agric studies in 2020 at SU under the supervision of Dr Pieter Swanepoel of the SU Department of Agronomy, Dr Johan Labuschagne of the Western Cape Department of Agriculture, and Dr Ailsa Hardie of the SU Department of Soil Science.

The research for his thesis, titled Liming strategies for barley and canola production in no-tillage systems was done on about 150 farms across the Swartland and southern Cape.



Ruan van der Nest received the Junior Captain Scott medal for his research looking into the use of lime and the influence it has on barley and canola. Photo: Supplied

Study supervisor
Dr Swanepoel is
overjoyed at the
success of his
student and says:
"He has always had
the ability to work
independently and
perform a scientific
experiment of
excellent quality.

The fact that he published an article in a highly rated

international journal before he had submitted his MSc thesis testifies to this and was an additional motivation for awarding the MSc degree to him cum laude.

"His research has made an important contribution to new knowledge regarding the reaction of these two crops to liming practices in the Western Cape," says Swanepoel.

Van der Nest collected soil samples in the southern Cape and Swartland to determine the scope and geographical distribution of soil acidity and





stratification. The soil samples which he collected at various sites which had not been tilled for many years, showed that especially the Swartland has relatively acidic soil.

About 20% of soil samples from the Swartland had a pH level of less than 5.0, which is suboptimal for the cultivation of wheat, barley and canola. Especially soil at a depth of 5 to 15 cm tended to be acidic. "This can be ascribed to the slow movement and reaction of lime within the soil," says Van der Nest.

In a field trial he investigated the form, fineness and purity of lime. In addition, he looked at the difference which incorporation of different grades of lime made to the chemical attributes of soil, and how it influenced the growth and development of barley and canola.

He found that both crops did not really show a reaction to the addition of lime within the first two years. Micro-fine granulated lime which was applied at the recommended level showed faster movement in the soil than standard Class A lime and managed to neutralise soil acid levels faster without disturbing the soil. Soil disturbance through tillage, which is often not advisable on conservation agriculture farms, was however still the most effective way of neutralising soil pH at various depths.

"Micro-fine granulated lime is much more expensive that ordinary Class A lime, and farmers will have to decide for themselves whether the high input costs are justified," is Van der Nest's opinion.

Lime which was introduced with various soil tillage actions led to slightly improved plant growth and development in both barley and canola.

"This more optimal growth is most probably the result of additional soil advantages from the ploughing action, such as preventing compacting of soil. It also causes a decrease in nutrient stratification and the nutrient uptake which is made gradually available to plants from soil organic material."

Van der Nest, who grew up in Pretoria and was head boy of Cornwall Hill College, says he originally chose agronomy as field of study due to his interest in and love of nature and outdoor life. "As my knowledge of soil, various crops and agricultural systems increased, my interest grew," says Van der Nest, who incorporated undergraduate Soil Studies and Agronomy into his BSc Agric degree.

Currently he works in Zambia for Liseli Farms, and focuses on the cultivation of citrus, pecan nuts and various types of vegetables.





CALENDAR

KALENDER		
17 – 20 Augustus 2021	NAMPO Bothaville	
8 – 10 September 2021	Nampo Kaap: Bredasdorp	
15 October 2021	Boer van die Jaar Noord/Farmer of the Year North Function:	
19 November 2021	Boer van die Jaar Nasionaal/ Farmer of the Year National	

Upcoming IFAJ congresses		
2022 – Denmark		
2023 – Canada		
2024 – Switzerland		
2025 – Israel		
2026 – Kenya		
2027 – Croatia		



Africa Agri Tech 2021 Date Change Announced

As 2020 draws to a close it is evident that the current Covid-19 restrictions would negatively impact on a February 2021 date for the second edition of Africa Agri Tech.

We have therefore revisited the date discussion and reserved the venue as follows:

Expo Dates: Tuesday 22 – Thursday 24 June 2021

Venue: Sun Arena, Time Square, Menlyn Maine, Pretoria

The three-day conference programme will focus primarily on profitability, the need to embrace technology and examining which technology to implement and economic impact.

The event is also extending to embrace:

- Women in Agriculture
- Innovation Start-Ups
- Farming Training and education workshops







Beloftes van reën? Hierdie mooi toneel het Charl van Rooyen naby Fouriesburg gegroet terwyl hy op pad huis toe was.

Stuur vir ons jou stories

Alle lede word uitgenooi om bydraes vir Agripen voor die 15de van elke maand te stuur aan Magda Du Toit, magda.du.toit@outlook.com of Petrie Vogel, petrie@abevents.co.za

Send us your stories

All members are invited to send contributions to Agripen before the 15th of each month to Magda Du Toit, magda.du.toit@outlook.com or Petrie Vogel, petrie@abevents.co.za



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