KATOEN COTTON SA

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THE MID-SEASON EDITION

- Can't Stop Cotton Indaba and Awards
- Middelseisoen-insekplae
- International trade arrangements
- Katoensaadsituasie
- Research trials of the 2018/19 season

BLOU BETEKEN

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RUBIN 12 SWAERDIENS KOMPAKTE SKOTTELEG

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LEMKEN se Rubin 12-skotteleg is die ideale hulpmiddel om groot hoeveelhede plantmateriaal doeltreffend in die grond te werk. Die Rubin 12 is ontwerp met 'n aggressiewe invalshoek wat bewerking in moeilike omstandighede vergemaklik. Die hidroliese beheerde rollers beheer die diepte van die werktuig en verseker 'n uitsteekende ferm saadbed

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HUB: Katoen SA
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AFRIKA VRYEHANDELSOOREENKOMS GEE REDE VIR HOOP IN LANDBOU EN TEKSTIELE

Die African Continental Free Trade Agreement (AfCFTA) is 'n vryehandelsooreenkoms tussen Afrika-Unielande (AU) wat op 30 Mei 2019 tot stand gekom het. Tot op datum het 27 van die 54 AU-lande die ooreenkoms geteken en bekragtig.

Die vraag bly egter hoe die Suid-Afrikaanse landbou- en tekstielsektor voordeel sal trek uit die AfCFTA, wat op 1 Julie 2020 in werking tree. Afrika het 'n mark van een miljard mense met 'n gekombineerde bruto binnelandse produk (BBP) van VSA$3,3 triljoen en 'n groeiende middelklas met groeiende verbruik. Die fasilitering van die vloei van goedere en dienste tussen Afrikalande deur die bemiddeling van AfCFTA sal geleenthede skep om intra-Afrikahandel te versnel, plaaslike besighede met gepaardgaande werkskepping tot stand te bring, en infrastruktuurontwikkeling op die kontinent te bevorder.

Weens Afrika se groeiende aandeel in Suid-Afrikaanse handelsuitvoere, hoofsaaklik vervaardigde goedere, is Suid-Afrika baie goed geplaas om met die inwerkingtreding van AfCFTA voordeel te trek uit een van die wêreld se grootste vryehandelsgebiede. Tans maak vervaardigde goedere 42% van intra-Afrikahandel uit. Die kontinent was oor die afgelope 10 jaar ook verantwoordelik vir die afset van gemiddeld 44% van Suid-Afrika se landbou-uitvoere gelykstaande aan VSA$3,9 miljard, teenoor 'n gemiddeld van minder as 30% in die vorige dekade.

Die uitdaging vir deelnemende lande is om 'n doeltreffende en deelnemende struktuur daar te stel om te verhoed dat enige van die ekonomieë agtergelaat word. Dit moet gesien word in die lig daarvan dat 50% van Afrika se BBP deur Egipte, Nigerië en Suid-Afrika gelewer word en Afrika se ses soewereine eilandnasies gesamentlik maar 1% bydra.

AFRICAN FREE TRADE AGREEMENT GIVES REASON FOR HOPE IN AGRICULTURE AND TEXTILES

The African Continental Free Trade Agreement (AfCFTA) is a trade agreement that came into force between African Union member states on 30 May 2019. To date, 27 countries of the 54 African Union member states have both signed and ratified the AfCFTA.

The question, however, remains how the South African agricultural and textile sector will benefit from AfCFTA, which is scheduled to start on 1 July 2020. Africa has a market of 1 billion people and a combined GDP of US$3,3 trillion with a growing middle class and growing consumption. By facilitating the movement of goods and services among African countries, AfCFTA will create opportunities to accelerate intra-African trade, grow local businesses, create jobs, and increase infrastructure development on the continent.

As Africa already accounts for a growing share of South Arica's trade, mainly manufactured goods, it is well placed to benefit from one of the world's largest free-trade areas once it is fully up and running. Currently, manufactured goods make up 42 percent of intra-African trade. Over the past 10 years the African continent also accounted for an average of 44% of South Africa's agricultural exports, which equals US$3,9 billion, up from an average of less than 30% in the previous decade.

The challenge, however, is for participating countries to build an efficient and participatory structure to avoid leaving any economies behind. This must be considered in light of the fact that over 50% of Africa's cumulative GDP is contributed by Egypt, Nigeria and South Africa, while Africa's six sovereign island nations collectively contribute only 1%.

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Cover picture: Leonard Venter, Chairperson: Cotton SA, handing over the certificate of recognition for the category Transformation and Development to Letlatsa Lehana (Khula Credit Guarantee) and Natasja Ambrosio (MRPG).

OUTLOOK ON TEXTILES

by Helena Claassens, Cotton SA

THE SOUTH AFRICAN CONSUMER LANDSCAPE

The characteristics and dynamics in the South African consumer environment centre around various aspects, such as household income and size, education levels, urbanisation, age distribution, unemployment, debt, and food access.

The disposable income of households per capita increased by 7,7% in real terms from 2008 to 2018. Household disposable income has been under pressure in recent years. From 2017 to 2018 disposable income increased by only 0,1% in real terms. The average household size in South Africa has decreased from 4,5 members in 1996 to 3,5 members during 2016/2017.

According to statistics, the education levels in South Africa have been improving over time. This could lead to people moving to cities in order to find work. Increasing urbanisation is a key feature of the South African consumer landscape. It has been recognised as one of the key drivers of nutrition transition (takeaway food), which is often associated with negative health outcomes.

The South African population is dominated by younger individuals, with 47% of the population below 25 years of age. Individuals younger than 15 years represented 30% of the population in 2018, while people of 65 years and older represented 6%.

The unemployment rate is currently about 29% – nearly a third of the labour force.

South African consumers have been increasing their debt levels consistently. Both the number of accounts in the gross debtor book and the number of credit applications have increased.

Retail trade sales of textiles, clothing, footwear and leather decreased from 18% of total retail sales in 2017 to an estimated 16% in 2019. Retail sales of food, beverages and tobacco products were constant at 8% of total retail sales.

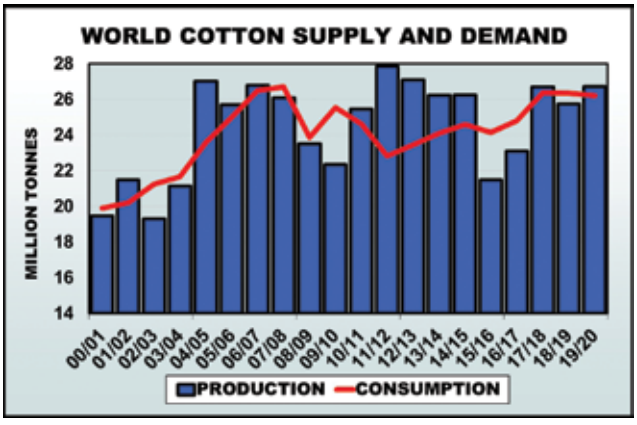
One can conclude that most of the household income is spent on textiles, clothing, footwear, and leather goods (16% of total retail sales).

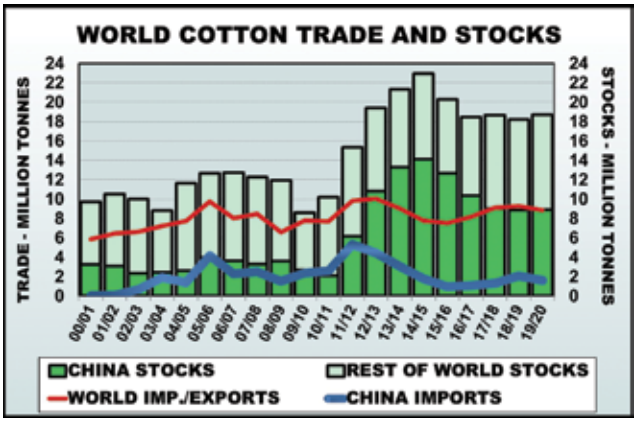
Sources: BFAP Baseline and Stats SA

KATOEN SA MARKVERSLAG

deur Mario Botha, Katoen SA

Die **COTLOOK A INDEKS** is 'n daaglikse aanwyser van internasionale katoenveselpryse en is die gemiddeld van die vyf goedkoopste kwotasies (koste en vrag) van die belangrikste katoentipes wat internasionaal verhandel word. Bestemming: Verre Ooste.	**COTLOOK A INDEKS**	**AFGELEIDE SA "PRYS"**
	Gemiddelde VSA c/lb	Gemiddelde SA c/kg
Augustus 2019	70,75	2 361,34
September 2019	76,45	2 285,79
Verlede week (22/10/19–25/10/19)	75,31	2 436,29
Vandag (05/11/19)	**75,50**	**2 456,78**
Vandag 'n jaar gelede	86,40	2 693,37
Vandag twee jaar gelede	79,25	2 482,72





VERSWAKKING VAN VERBRUIKERSVERTROUE VERLANGSAAM VERBRUIK, VRAAG EN HANDEL

Volgens die jongste markverslag van die International Cotton Advisory Comittee (ICAC), word globale katoenverbruik en -handel afwaarts aangepas. Die impak van VSA-tariewe op Chinese tekstiel en die uitvoer van klere sal na verwagting lei tot die verlangsaming van produksie en invoere deur China.

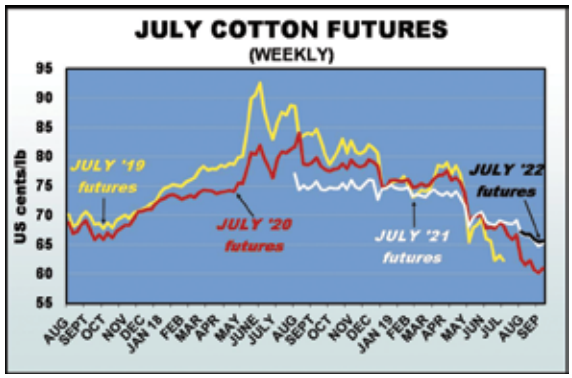
Huidige projeksies vir globale verbruik in 2019/20 beloop 26,2 miljoen ton met handel geprojekteer op 8,8 miljoen ton. Verbruik deur die wêreld se grootste verbruiker, China, word beraam op 8,05 miljoen ton vir 2019/20. Die afname van 200 000 ton verteenwoordig 'n 2% daling en dit is die tweede seisoen dat verbruik afneem. Invoere deur China word geprojekteer op 1,6 miljoen ton, 'n 22% (400 000 ton) afname van die vorige seisoen se 2,1 miljoen ton.

Die impak van die VSA-tariewe op Chinese tekstiel- en klereuitvoere het nie net die vraag in China beïnvloed nie, maar ook wêreldwyd, en verbruik sal tans onder druk bly.

> "Volgens die jongste markverslag word globale katoenverbruik en -handel afwaarts aangepas."

SA KATOENOES

Die tiende skatting vir die 2018/19 produksiejaar dui op 'n katoenoes van 241 484 bale vesel vir Suid-Afrika. Dit dui op 'n daling teenoor die vorige maand se skatting, maar toon nog steeds 'n groei van 29% teenoor die vorige seisoen.



New York futures VSA c/lb – 5 November 2019	
Desember 2019	63,81
Maart 2020	65,47
Mei 2020	66,49
Julie 2020	67,45
Oktober 2020	67,38
Desember 2020	67,58
Maart 2021	68,17
Mei 2021	68,82
Julie 2021	69,42

Wêreldproduksie word tans geraam op 26,7 miljoen ton. Terwyl die verwagting is dat Indië die nommer een produsent in die wêreld met 'n produksie van 6 miljoen ton sal wees, bly die verwagte produktiwiteit van 440 kg/ha van die laagste in die wêreld en onder die internasionale gemiddeld van 780 kg/ha.

VSA-produksie word geraam op 4,7 miljoen ton, 'n verhoging van 18% teenoor die vorige seisoen, ten spyte van stadige

Katoenoesverslag: 10de skatting 2018/19 produksiejaar

Produksiestreek	Hektare besproeiing	Hektare droëland	Opbrengs besproeiing kg katoenpluksel/ha	Opbrengs droëland kg katoenpluksel/ha	Produksie 200-kg bale katoenvesel	% van oes hand-gepluk	% van oes sover gepluis
LIMPOPO							
Loskop	4 683	0	4 300	0	36 246	0%	55%
Noord- en Suidvlakte	1 236	8 912	3 000	680	17 583	0%	55%
Koedoeskop, Dwaalboom, Thabazimbi	7 720	0	5 699	0	81 393	0%	50%
Limpopo en ander	636	142	3 742	400	4 430	0%	72%
Weipe	1 100	0	3 500	0	7 123	0%	100%
NOORD-KAAP							
Vaalharts	2 333	0	4 580	0	19 768	0%	93%
Benede-Oranjerivier	364	0	4 000	0	2 694	0%	40%
Res van Noord-Kaap	4 065	0	4 858	0	38 313	0%	57%
NOORDWES							
Stella, Delareyville, Schweizer-Reneke, ens.	628	3 578	4 349	2008	18 346	0%	65%
Taung, Skuinsdrif	230	0	4 000	0	1 702	0%	40%
KWAZULU-NATAL	736	1 989	4 075	800	8 722	19%	66%
MPUMALANGA	0	1 771	0	755	2 474	100%	55%
VRYSTAAT	50	800	3 500	1 600	2 692	0%	40%
RSA TOTAAL	**23 781**	**17 192**	**4 781**	**1 019**	**241 484**	**2%**	**56%**
Swaziland*	250	1 500	4 000	750	3 825	100%	60%
Botswana*	0	0	0	0	0		
Namibië*	50	0	0	0	370		0%
Zimbabwe*	0	0	0	0	0		
Mosambiek*	0	0	0	0	0		
GROOTTOTAAL	**24 081**	**18 692**	**4 773**	**997**	**245 679**	**3%**	**56%**

* Besonderhede het betrekking op verwagte aankope van katoenpluksel deur Suid-Afrikaanse en Swazilandse pluismeulens vanaf hierdie lande.

uitvoere en die verhoging van voorraadvlakke in 2018/19. Met hoër produksie word verwag dat die uitvoer deur Indië met 13% tot 900 000 ton sal styg, terwyl invoere stabiel op 350 000 ton sal bly.

Area en produksie in Mexiko sal na verwagting hierdie seisoen afneem, met daling in oppervlakte van 8% tot 224 000 hektaar as gevolg van die gebrek aan beskikbaarheid van katoensaad. Die produksie sal na verwagting met 11% daal na 369 000 ton. Met die verwagting dat die verbruik op 440 000 ton sal bly, word verwag dat die invoer sal styg met 48% tot 141 000 ton.

Aangeplante gebiede in Pakistan het in 2019/20 toegeneem teen die hoë teikenvlakke wat deur die regering bepaal is. Slegte weer sal die produksie waarskynlik verminder tot 1,6 miljoen ton of minder. Moesonreën het 'n invloed gehad op beide die hoeveelhede en kwaliteit, met hoë temperature wat die potensiële opbrengs kan verlaag.

KATOENPRYSBEWEGINGS

Die ICAC se jongste prysprojeksie vir die 2019/20-seisoen (vanaf 1 November 2019), dui op 'n seisoengemiddelde Cotlook A-indeks van tussen 63 en 90 VSA c/lb, met 'n middelpunt van 76 VSA c/lb (RSA prysekwivalent van ongeveer R24,50/kg).

Die uitgerekte handelsoorlog tussen die wêreld se grootste uitvoerder van katoen, die VSA, en die grootste verbruiker, China, gekombineer met gunstige wêreldkatoenproduksievooruitsigte sowel as toenemende wêreldvoorraadvlakke in 2019/20, plaas steeds afwaartse druk op pryse.

Die wêreldproduksie van 26,7 miljoen ton in 2019/20 oorskry die produksie van die vorige seisoen met 1 miljoen ton, gedurende 'n periode waartydens katoenverbruik onder druk verkeer. Dié situasie, tesame met stygende voorraadvlakke, sal ekstra druk op pryse gedurende die huidige seisoen plaas.

TERMYNMARKTE

Tans verhandel katoen vir die vierde agtereenvolgende week bó 60 VSA c/lb in die termynmark en sommige ontleders is van mening dat met die onlangse verstewiging in pryse, die tempo van katoenverkope verder afgeneem het. China verkry ook al hoe meer sy katoen van nuwe bronne, insluitende Wes-Afrika.

NUUS / NEWS

NEW ECONOMIST FOR THE COTTON INDUSTRY

Mario Botha is the new agricultural economist at Cotton SA. He previously worked for Santam Agriculture in the crop insurance division. He was the relationship manager for the Free State and certain areas in the Eastern Cape. Mario has a BCom degree in agricultural economics (University of Pretoria) and a business management degree (Stellenbosch University), and he intends furthering his studies in future. He has a passion for agriculture and the development thereof and is looking forward to building his career at Cotton SA.

Mario is a family man, a fitness enthusiast and an upcoming businessman. His hobbies are driving off-road trails, motorcycling and travelling. He can be contacted at mario@cottonsa.org.za.

Mario Botha.

AGRISETA TAKES ACTION

Tertius Schoeman from Cotton SA attended a one-day workshop of the Fibre Sub-Sector Committee (SSC) facilitated by AgriSETA in Port Elizabeth on 12 September 2019. The Fibre SSC deals with the commodities cotton, wool and mohair. Urgent attention was given to the challenges that the three commodities present in the working relationship with AgriSETA, pertaining to training content, payments and allocation of funding. Mrs N. Sibia from AgriSETA took immediate action and before the end of the meeting solutions were already on the table. The structure of the commodities and the national arrangement of where all the commodities will slot in were discussed and the Fibre SSC made recommendations in this regard.

From left to right: Leon de Beer, National Wool Growers' Association; C Warren, BKB; A Jordan, OVK; N Sibia, AgriSETA; and Tertius Schoeman, Cotton SA.

COMMUNICATING AGRICULTURAL TECHNICAL VOCATIONAL EDUCATION AND TRAINING (ATVET)

Tertius Schoeman, the agricultural transformation and development manager at Cotton SA, attended a workshop recently on ATVET Private Sector Engagement. The workshop was organised by the Department of Agriculture, Forestry and Fisheries (DAFF), in association with the Food and Agriculture Organization of the United Nations (FAO), in Johannesburg. The main purpose was to communicate the vocational education and training (VET) strategy for agriculture, forestry and fisheries of DAFF to the private sector, commodity organisations and training institutions.

The urgent need for training in the agricultural sector not only in South Africa but also in Africa at large, was a concern throughout the workshop. A new set of strategic objectives was workshopped by the delegates and resolutions were passed on issues of performance, relevance, workplace-based training and financing of ATVET systems. Cotton SA would like to see the Tompi Seleka ATVET College in Mpumalanga become a registered AgriSETA training entity. It is a vibrant and fully functional institution situated in the vicinity of a large number of smallholder cotton farmers who could benefit from the training Cotton SA provides.

Tertius Schoeman at the workshop.

COTTON BY-PRODUCTS WORKSHOP INITIATIVE

A cotton by-products workshop was organised recently by the Agricultural Research Council (ARC) – Industrial Crops, in collaboration with Cotton SA. Potential funders, ARC members, Cotton SA members and private consultants attended the workshop to investigate the starting of a cotton by-products project, which could add value to the cotton pipeline. New ideas for by-products included starting a small business project where a small-scale farmer community makes products to sell, adding to the value-chain, and creating employment at the same time. Ideas like weaving, briquettes made from cotton stalks, and making medical by-products and hygienic female or baby cotton products, were discussed. Cotton SA will further investigate the feasibility of these ideas.

KOOT GROET NA 21 JAAR DIENS BY KATOEN SA

Dis moeilik om vir mense wat só 'n lang pad met jou gestap het, totsiens te sê. Jy neem alte maklik aan dat hulle maar altyd deel van jou daaglikse bestaan sal wees. Dan verander alles en die toekoms lyk skielik anders. Koot Louw het vir bykans 21 jaar by Katoen SA gewerk voordat hy einde September 2019 amptelik afgetree het. Nadat hy sy studies voltooi het, het hy in 1972 by die voormalige Koringraad as ouditinspekteur begin werk. Tydens sy dienstydperk van 25 jaar het hy gevorder tot hoof van die Ekonomiese Dienste-afdeling. Met die ontbinding van die bemarkingsrade het hy in 1998 by Katoen SA aangesluit en was daar werksaam tot sy aftrede. Ons ken hom as 'n baie beskeie maar kleurryke persoon met interessante stokperdjies. Hy is 'n versamelaar van ou gedenkwaardighede wat 'n mens met nostalgie aan jou kinderdae laat terugdink. Koot is nie 'n man van vele woorde nie, maar het hom laat geld met die bekwame en nougesette wyse waarop hy sy verantwoordelikhede uitgevoer het. Hy het vele talente en sal beslis in Katoen SA gemis word. Om te groet is moeilik. Gelukkig is dit nie vaarwel nie. Ons almal by Katoen SA wens vir Koot net die beste toe met hierdie nuwe hoofstuk in sy lewe. Mag hy uitstekende lewensgehalte ervaar en geseënd wees met goeie gesondheid.

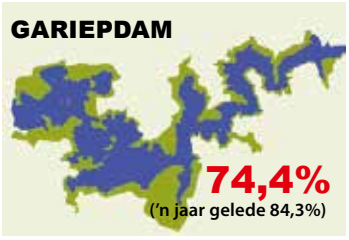
Huidige katoenvariëteite bied steeds beskerming teen bolwurms!

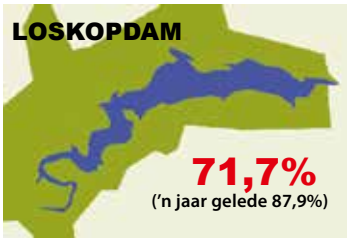
DAMME EN KLIMAATS-VOORUITSIGTE

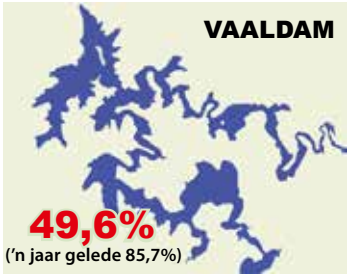
SA Weerdiens-verslag soos op 28 Oktober 2019
Saamgestel deur Tobie Jooste, Katoen SA

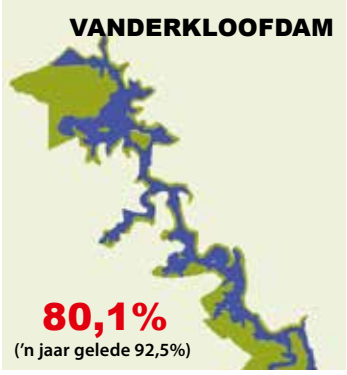
Vanderkloofdam.

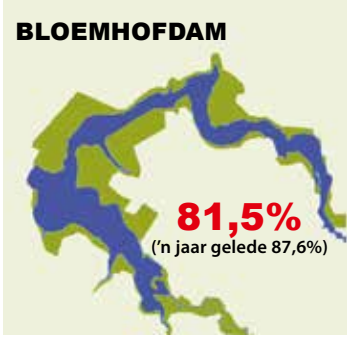
DAMMESTAND SOOS OP 21 OKTOBER 2019











KLIMAATSVOORUITSIGTE VIR DESEMBER 2019 TOT FEBRUARIE 2020

Die El Niño–Suidelike Ossillasie (ENSO) is tans uiters onseker, met 'n wye verskeidenheid van uitkomste voorspel deur verskillende vooruitskattingsentrums. Gewoonlik wanneer dit die geval is, is seisoenale voorspellings vir die somerreënvalgebiede geneig om ook baie onseker te wees. Die "laat lente"-tydperk dui op voorspellings dat minder reënval meer waarskynlik is oor die sentrale tot suid-oostelike dele van die land. Die vroeë somer is egter 'n aanduiding dat bogemiddelde reënval meer waarskynlik is vir die sentrale en oostelike dele, en dit word voorspel om in die middel van die somer te wees. Dit is belangrik om kennis te neem van internasionale voorspellings wat baie selfversekerd blyk te wees, van die verhoogde waarskynlikheid van tipiese El Niño-reënvaltoestande oor Suider-Afrika gedurende die hele somertydperk. Dit beteken daar is teenstrydige voorspellings vir die grootste gedeelte van die somertydperk, en dit verhoog die onsekerheid vir die komende somerseisoen. Met betrekking tot temperature, word meestal hoër-as-normale temperature verwag vanaf die vroeë lente tot middelsomer vir die mees noordelike dele van die land.

Can't Stop Cotton INDABA AND AWARDS

by Tanya Aucamp, Communication Specialist for Cotton SA

Frans Malela, a former electrician from Marble Hall in Limpopo, is one of South Africa's leading black cotton farmers. Frans was one of the 27 cotton leaders honoured at Cotton SA's glitzy awards ceremony at the Birchwood Hotel and OR Tambo Conference Centre in Boksburg, Gauteng on 13 November. He was specifically recognised for his role in uplifting and developing other small-scale farmers.

The ceremony was preceded by a historic first industry indaba with more than 200 delegates including clothing retail giants such as the Mr Price Group (MRPG), farmers, ginners, spinners, government, and many other industry role players.

The event, hosted by Cotton South Africa in partnership with the South African Cotton Cluster (SACC), brought leaders and key industry stakeholders together to present their views on a variety of topics relating to the cotton industry, with exhibitors showcasing their services and products.

The keynote address was presented by Minister Ebrahim Patel from the Department of Trade and Industry (the dti) in a special pre-recorded video message, where he announced his support to

Can't Stop Cotton Indaba at the Birchwood Hotel and OR Tambo Conference Centre, Boksburg.

An interactive panel discussion with the original pilot programme stakeholders, which included Cotton SA, represented by Hennie Bruwer (CEO of Cotton SA) and Leonard Venter (Chairperson: Cotton SA), Mairi Watson (MRPG), Justin Mansfield (Powerhouse Clothing), Enrique Crouse (Prilla 2000), Joseph Kempen (Loskop Cotton Gin) and Elaine Smith (the dti) – facilitated by Heinrich Schultz (CEO and founder of OrganiMark Group).

The MRPG team – proud recipients of two certificates. Back: Matthew Morris, Sue Samie, Jacky Miller, Natasja Ambrosio, Paulina Urban and Dylan Cherry. Front: Kerry Strauss, Yanni Vosloo, Mairi Watson, Letlatsa Lehana (Head of the Khula Credit Guarantee) and Shaun Gannon.

the local textile industry, and outlined the importance of collaboration in achieving the set goal of the 2030 South African Retail – Clothing, Textiles, Leather and Footwear (CTLF) Master Plan. Dr Roelof Botha, a well-known economist, provided an insightful overview of the South African economic situation in agriculture and the textile manufacturing sectors. Natasja Ambrosio from MRPG, the platinum sponsor to the event, emphasised their commitment to the industry by supporting upcoming black smallholder farmers.

Other presenters included Anubhava Kumar Katiyar (CEO of CMT Spinning Mills Ltd, Mauritius), Lisa Barratt (BCI – Africa Operations Manager), Noël Paulson (Edcon group), Lawrence Pillay (Woolworths) and Ian Taverner (SACC).

Mr Price Group said that it was proud to be a strategic partner during the 2019 Cotton Industry and Indaba Awards. The theme for the prestigious awards, "Can't Stop Cotton" was in line with the significant growth in cotton production experienced in South Africa over the past five years. MRPG was the leading retailer in establishing the SACC (originally known as the Sustainable Cotton Cluster) in 2013, working closely with government, industry and farmers to create a locally sustainable cotton industry – one that boosts capacity, creates employment opportunities, and is able to compete globally.

"Our dream is to see more South African cotton products being manufactured from locally grown cotton," said Natasja Ambrosio (Head of Sustainability, MRPG). To make this dream a reality, MRPG supports small-scale cotton farmers to grow cotton, and together with Khula Credit Guarantee, were one of the three recipients in the category Transformation and Development. Through financing arrangements, the group helps the flow of local cotton from farmer to product, which includes cotton ginners, spinners and manufacturers.

"Mr Price Group recognises the importance of local cotton farmers in the whole value chain, and wholly supports the growth of the local cotton industry

competing on a global level. The economic upliftment of small-scale farmers utilising sustainable farming methods is also vital to us," said Mark Blair (CEO of MRPG).

RECOGNITION CERTIFICATES FOR OUTSTANDING CONTRIBUTIONS

- Samuel Riba, Marble Hall area – Black Smallholder Farmer (semi-commercial).
- Janneman Bronkhorst, Bumi Boerdery, Limpopo – Newcomer Commercial Cotton Production: Irrigation.
- Janco Coetzee, Goedgedag Boerdery, Limpopo – Newcomer Commercial Cotton Production: Dryland.
- There were four recipients for the category Commercial Cotton Production: Irrigation – Jacques Willemse and Rian van den Heever (Limpopo), Johan Maree and Kevin Reid (Northern Cape).
- Hannes Hertzog, Hertzog Farmers, Limpopo – Better Cotton Initiative (BCI).
- The category Transformation and Development had three recipients – Frans Malela, Jannie Terblanche, and MRPG together with Khula Credit Guarantee.
- Two Cotton Industry Enablers were selected – Wilber Rudman and Richard Godfree-Thom, Northern Cape.
- Louis Olivier, Vaalharts Cotton Gin, Northern Cape – Ginner 2019.
- Enrique Crouse, Prilla 2000 – South African spinner consuming the most South African cotton.
- Anubhava Kumar Katiyar, Compagnie Mauricienne de Textile Ltee (CMT), Mauritius – SADC spinner consuming the most South African cotton.

ROLE PLAYERS IN THE COTTON CLUSTER ALSO HONOURED

During the event, the SACC also recognised the contribution of the cluster value chain contributors. Enrique Crouse, chairperson of SACC, had the privilege to hand over the certificates to five worthy recipients. These included the three retail

partners for their contributions in specific areas. MRPG was recognised for taking the bold step as the first retailer that joined the Cluster.

The Edcon group was recognised for their commitment towards running a 100% South African integrated supply chain programme (ISCP), while Woolworths was commended for being the only South African retailer that is a member of the BCI.

Joseph Kempen (Loskop Cotton) and Leonard Venter (Limpopo farmer and chairperson of Cotton SA) were recognised as Cotton Cluster advocates for their personal contribution and determination to promote and grow the cotton value chain and their support to industry-related organisations. Venter recognised the demise of the cotton industry in 2013 and 2014 and was the key initiator of a bold plan to turn the industry around, bringing various role players together, which led to the establishment of the Sustainable Cotton Cluster programme (known as the SACC).

In their report the adjudicators said, "Venter is known for his strength of character and not giving up. He has a strong value system, believes in farmers, and gives his continuous support towards a greater farming community by his involvement of over 40 years in the industry. He walks the footsteps of a true farmer and has appreciation for the difficulties that farmers experience. He carries a large community responsibility and is recognised for his leadership, time, effort and commitment by serving many years on various agricultural bodies, and for his continuous support to the Cluster initiative."

Venter says he was surprised by the standing ovation from cotton farmers and industry leaders. "It really means a lot to me, and it is the result of lots of hard work. I was quite moved."

COTTON AWARDS

Petros Sithole received the Smallholder Farmer Award. He approached Cotton SA in 2014 to investigate and collaborate for funding for the Nkomazi cotton project in Mpumalanga with remarkable success. Since then, more than 700 farmers have planted close to 2 000 hectares on dryland fields in the region. Sithole said, "I originally started grouping the cotton farmers in Nkomazi because I saw that they were struggling. Together with Cotton SA and the Department of Rural Development and Land Reform, we were able to help them. To think, I was (originally) a vegetable and sugar cane farmer when people started asking why I'm not going into cotton. It was a great decision."

The Better Cotton Initiative (BCI) Farmer Award went to Johan and Corné de Klerk from the Sanleohan Trust in the Koedoeskop area, who took part in the BCI project for the first time in the 2018/2019 cotton season. Together with Nico Swart from the Koedoeskop Gin they worked hard to get all the BCI requirements in place. They received a 100% clean audit from the BCI external auditors and were accredited with a five-year license.

Jozeph du Plessis from Locklore Boerdery in Schweizer-Reneke, North West, was awarded the title of New Entrant Commercial Cotton Producer: Dryland. He was commended for his excellent production performance and his contributions in taking part in organised agriculture, which includes Agri NW, Agri SA and Grain SA. He is also involved in agricultural upliftment initiatives through Grain SA and is involved in various black empowerment initiatives in the Schweizer-Reneke area. He is a true leader and mentor to other farmers in the area and supports new technologies like precision farming.

DB Lubbe, a new cotton farmer from Danrika Boerdery, Northern Cape, was also honoured as the New Entrant Commercial Cotton Producer: Irrigation. He succeeded despite being set back by a significant hailstorm in January 2019 on his farm. The judges said his cotton quality was also of a good standard.

Jan-Lodewyk Young, from Limpopo, was awarded the title Commercial Cotton Producer: Dryland. He has been farming with dryland

Leonard Venter with his wife Lona and their children Rouan and Esna Venter.

cotton for the past 25 years, is an integrated pest management supporter and takes part in community safety strategies.

The award for Commercial Cotton Producer: Irrigation went to Johan Buitendag from Koedoeskop Gin, Limpopo. He has been planting cotton for almost five years, is BCI-compliant and supports integrated pest management production methods. Buitendag promotes innovative technologies and is currently investigating new sustainable farming methods.

The South African cotton industry has achieved major successes in the past few years. Industry-wide, there has been a 500% increase in hectares of cotton planted, and a whopping 800% increase in local cotton production. The country's cotton farmers and ginners have committed more than R500 million in private investment while the cotton value chain currently employs about 50 000 people.

Northern Cape recipients: Richard and Bea Godfree-Thom, Louis and Marinda Olivier, Charel and Coreen Wolhuter, Wilber Rudman, Cisna and Jozeph du Plessis.

Limpopo recipients: Janneman and Liesel Bronkhorst, Joseph and Barbara Kempen, Andries and Francis Kruger, Jannie Terblanche, Frans Malela, Chanté and Jan Lodewyk Young.

COTTON CLIMBS OUT OF THE CLOSET

by Tanya Aucamp, Communication Specialist for Cotton SA

The South African Cotton Cluster programme was initiated by Cotton SA and the cotton producers in 2014 in partnership with other like-minded industry stakeholders, with the support of government funding through the Department of Trade and Industry (the dti). The Cluster stimulated awareness and open conversations on a coordinated platform, which included all the stakeholders in the cotton value chain.

The sustainability created through the Cluster interventions and open conversations, with a retail demand-driven business model as key driver, combined with a rise in international cotton prices, enabled increasing profit margins in relation to other competitive summer crops. This has resulted in momentum in the cotton industry over the past five years, unlocking many growth opportunities, bringing Cotton SA to the fore, and celebrating growth in the industry.

Aligned to this growth and the committed support from cotton retail partners Mr Price Group, Edcon Group and Woolworths, Cotton SA is again in a position to dust off its coat and grow its marketing initiatives. It is with pride that Cotton SA launched the new Green Cotton Mark during the Can't Stop Cotton Indaba held on 13 November at Birchwood Hotel, Boksburg.

"This mark will be Cotton SA's vehicle to create and enhance market access for local cotton products", said Leonard Venter, chairperson of Cotton SA. Items linked to the cotton mark at point of sale displayed on garments and/or swing tags, will give the consumer the confidence that the product they are buying supports South African cotton production. The Green Cotton Mark will provide retail with a "mark" to build a local cotton brand.

The circular design of the mark represents integrated collaboration, of an industry taking hands and forming a circle. Similarly, the production cycle from fibre to cloth follows cotton that produces green cotton bolls, which after harvesting give rise to the production of cotton bales, which in turn is processed by rotation at spinner level, giving rise to finished rolls of fabric! The green colour of the mark symbolises continuous growth that "can't be stopped"!

INTERNATIONAL TRADE ARRANGEMENTS

by Dr Koos Coetzee, an independent agricultural economist

The recent trade war between the USA and China once again highlighted the importance of international trade relations. Trade wars and trade restrictions are not a new phenomenon. In 1651 and 1660, England promulgated the Navigation Acts that excluded foreign ships from carrying goods from British and colonial ports to Britain. In the mercantilist period, countries imposed various restrictions on foreign trade.

Adam Smith explained the reasons for the removal of trade restrictions in *The Wealth of Nations* published in 1776. If countries produce those goods for which they have a comparative advantage, and buy those goods that other countries produce more efficiently, society as a whole would benefit more than when everyone tries to produce all goods themselves. Freer trade theoretically leads to higher total benefit for all.

Trade restrictions result in lower economic growth. In its latest World Economic Outlook the International Monetary Fund reports that global economic growth continues to be weakened by rising trade barriers and increasing geopolitical tensions. They estimate that the US–China trade tensions will cumulatively reduce the level of global GDP by 0,8% by 2020 and that the uncertainty around the United Kingdom's exit from the EU (Brexit) poses further risks to economic growth globally.

THE WORLD TRADE ORGANIZATION (WTO)

After the Second World War, and following the success of the Bretton Woods Conference on international financial arrangements, countries started to discuss the formalisation of international trade policy. This action, largely driven

by the USA, eventually resulted after a few hiccups in the signing of a General Agreement on Tariff and Trade (GATT) in Geneva in 1947. Since then, various rounds of negotiations were completed. The WTO replaced the GATT as the custodian of international trade. The General Agreement however still remains the WTO's umbrella treaty for trade in goods.

Agricultural trade was included in the Uruguay Round (UR) of the WTO negotiations. The inclusion of agricultural trade posed a major obstacle in the negotiations. After much further negotiating and technical work at the WTO, 123 countries, including South Africa, signed the Uruguay Round agreement at a meeting in Marrakesh, Morocco.

THE THREE PILLARS OF AGRICULTURAL TRADE

The agricultural trade negotiations focus on the following pillars of trade:

• Market access

Market access is governed by import tariffs and tariff quotas. All signatories agreed to maximum import tariff levels, the so-called bound rates, and to a gradual reduction in import tariffs. Specific tariffs were set at or below the bound rate. South African import tariffs for agricultural products were fixed at levels far below the bound rates.

Agricultural tariffs are high compared to industrial tariffs. To facilitate higher market access for agricultural products, countries had to agree to allow specific quantities of products at lower import tariffs of 25% of the bound rate. These market access quotas created problems for some South African agricultural sectors.

• Domestic support

The biggest obstacle for the Uruguay Round was the massive support European, American and other countries rendered to their agricultural sectors. In the UR, domestic support subsidies were divided into a few so-called "boxes".

The red box contains so-called forbidden support, and the amber box, most domestic support measures. These are subject to an allowed minimum, *de minimus*, of 5% for developed, and 10% for developing countries. The aim is to reduce support to below the *de minimus* levels and the 32 WTO members with subsidies that are higher than this committed themselves to reduce them. The green box contained subsidies that do not directly distort trade. These subsidies must not distort trade, and they must be government-funded and exclude price supportive measures. They are usually programmes that are not targeted at specific products or as the EU calls it, "decoupled" from production. Environmental protection measures fall into this group. It also includes various income insurance programmes and safety net programmes.

The blue box contains support measures that require farmers to reduce production. There are no limits to the amounts spent in the blue box. Well-known blue-box measures are the set-aside schemes for crop production in the USA. The prevent–plant scheme that US farmers used to get subsidies for, if they did not plant maize in a particular year, is a good example.

After the Seattle ministerial meeting had ended in chaos in 1999 as anti-globalisation protestors took to the streets in what is known as the Battle of Seattle, the WTO did all it could to accommodate the concerns of developing countries, and even named the next draft agenda the Doha Development Agenda. WTO then added a new box, the so-called "development" box that includes all measures that promote development of agriculture in developing countries. Unfortunately, developing countries lack the funds to spend on subsidies.

• Export subsidies

GATT already prohibited export subsidies for industrial products in 1947. Export subsidies proliferated in agriculture. This was one of the key issues discussed in the Uruguay Round. Export subsidies are subject to reduction commitments. In December 2015 at the WTO's 10th ministerial meeting in Nairobi, members agreed to abolish export subsidies: developed countries immediately, and developing countries by the end of 2018. Currently, export subsidies are no longer an issue of concern for agriculture. However, if international agricultural prices drop, we may see countries reintroducing export subsidies.

COTTON – A SPECIAL CASE

Trade policy highly distorts cotton trade and production. The United States is the major provider of subsidies to the cotton industry. Brazil took the USA to court in 2003 and obtained a ruling against the USA in 2004. Instead of limiting subsidies to cotton producers, the USA bought itself out of the problem by paying Brazil. Four African countries, Benin, Burkina Faso, Chad, and Mali, known as the Cotton 4 or C4, complained in 2003 about the impact of support to cotton producers in developed countries. This resulted in the WTO treating cotton as a special case with biannual discussions on cotton.

Developed countries agreed to allow duty-free market access to cotton imports from least-developed countries. The 2015 Ministerial Decision on Cotton contains provisions for improving market access for least-developed countries, reforming domestic support and eliminating export subsidies.

In spite of these high-level decisions, cotton remains a highly subsidised product in some countries. In 2017/18, subsidising countries paid an estimated US$5,9 billion to the cotton sector, 33% more than in the previous year.

REGIONAL TRADE AGREEMENTS

While the multilateral negotiations under the auspices of the WTO continue from year to year with little real progress, various countries or groups of countries entered into trade agreements with one another with the goal of promoting trade among themselves.

THE SOUTH AFRICAN CUSTOMS UNION (SACU)

The Southern African Customs Union is the oldest customs union in the world. The Cape Colony and the independent Orange Free State established it in 1889. After unification in 1910, a new agreement included the Union of South Africa and the British High Commission territories, Bechuanaland (Botswana), Basutoland (Lesotho), and Swaziland (ESwatini). South West Africa (Namibia) was included as it was administered by South Africa. The 1919 SACU agreement created a common external tariff on all imported goods, a common tariff pool, free movement of goods between the member states and a revenue-sharing formula for sharing tariff income.

> “After the Second World War, and following the success of the Bretton Woods Conference on international financial arrangements, countries started to discuss the formalisation of international trade policy.”

In 2002, a new agreement established a joint decision-making process, and a new revenue-sharing formula.

Theoretically, all trade between customs union member states should be free from tariffs. In practice, South Africa’s customs union partners use provisions for the protection of infant industries and for the national interest in the SACU agreement to limit imports from South Africa. Examples are Namibia closing their borders to maize imports as long as they still have local stocks available and Lesotho blocking the importation of fresh vegetables for specific periods. They also succeeded in negotiating quotas for the tariff-free import of goods into their countries.

THE SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC)

SADC originated as the South African Development Co-ordination Conference, an initiative of the so-called “frontline states”, with the main purpose of reducing their dependence on apartheid South Africa. In 1992 this was changed into SADC. SADC member states are:

- Angola
- Botswana
- Lesotho
- Madagascar
- Malawi
- Mauritius
- Mozambique
- Namibia
- Seychelles
- South Africa
- Swaziland
- Tanzania
- Zambia
- Zimbabwe
- Democratic Republic of the Congo

The main objectives of the SADC are to:

- achieve development and economic growth;
- alleviate poverty;
- enhance the quality of life of the people of Southern Africa; and
- support the socially disadvantaged through regional integration.

In spite of these admirable goals, there is little evidence of real regional integration in the SADC.

THE NEW DREAM: AFRICAN CONTINENTAL FREE TRADE AREA (AFCFTA)

In May 2019, AfCFTA was established when 24 countries submitted the necessary paperwork. To date 27 countries have ratified the AfCFTA agreement. AfCFTA will focus on five operational aspects namely:

- Rules of origin
- An online negotiating forum
- Monitoring and elimination of non-tariff barriers
- A digital payment system
- African trade observatory

African economic integration is still only a dream. While South Africa and the BLNS countries are still not able to integrate fully and eliminate trade barriers between them, it seems overly ambitious for a diverse group of countries to progress towards economic integration.

BI- AND MULTILATERAL TRADE AGREEMENTS

South Africa has trade agreements with various countries and groups of countries like the South American MERCOSUR, European Free Trade Agreement (EFTA), SADC, Brazil, Russia, China and South Africa (BRICS), and the European Union (TDCA). Of these, the TDCA is probably the most important one. While these agreements provide opportunity for South African exports at lower tariffs to these countries, it also provides opportunities for these countries to export to South Africa. In many cases, while the other partner countries are able to enjoy the more favourable opportunities in the South African market, South African exports frequently find that phytosanitary non-tariff barriers prevent exports.

TRADE AND DEVELOPMENT COOPERATION AGREEMENT (TDCA)

The current Trade and Development Cooperation Agreement (TDCA) between the European Union and South Africa provides for the liberalisation on the EU side of 95% on South African products and on the South African side of 86% of its duties on imports from the EU. A new agreement between South Africa, Botswana, Lesotho, Namibia, Swaziland, and Mozambique (known as the SADC EPA group) and the European Union was signed in 2016 and will replace the TDCA. It will provide more access to EU markets for South African agricultural products.

Summary

Global economic growth largely depends on a stable trading environment. The recent trade war between the USA and China has already resulted in weaker confidence and a slowdown in industrial production, particularly in China, but also in other countries. The International Monetary Fund (IMF) warns that countries will have to resolve trade disagreements cooperatively and roll back the recently introduced distortionary barriers. Realistically, this will not happen very soon.

The international trade environment is very complex. The WTO provides a rule-based system for harmonising international trade. In addition to the very slow progress towards freer trade and less trade-distorting domestic support within the WTO, countries and groups of countries enter into bilateral and regional trade agreements with the goal of promoting freer trade. While progress towards freer global trade is slow and erratic and sometimes takes a few steps backwards, it is slowly but surely progressing towards a freer trade environment, with less support to farmers in developed countries. Farmers in South Africa produce at globally competitive levels with little or no government assistance. This meagre support will decrease further in future. The competition from developed countries may become slightly "fairer" as countries reduce domestic support. However, South African farmers will have to be globally competitive to survive.

Afrika-bolwurm op katoen.

MIDDELSEISOEN-INSEKPLAE

deur dr. Annette Bennett, Katoen SA

Insekplae kan ingedeel word in vroeë-, middel- en laatseisoen-insekplae, terwyl sommige insekte regdeur die jaar kan voorkom.

- **Vroeëseisoenplae** sluit in aalwurms, snywurms, valsdraadwurm, katoensnuitkewer, katoenstamkalander, swartkatoenkewer, plantluise, en soms bladspringer. Hierdie plae is in die vorige uitgawe bespreek.
- **Middelseisoenplae** sluit in die vier bolwurmspesies, plantluise, bladspringer, witvlieg, groengroentestinkbesie, Mirid-besie, "tip-wilter"/groeipuntverwelkbesie, vlooikewer, asook ander blaarwurms en blaarmyners (ook genoem bladmyners).
- **Laatseisoenplae** sluit in die gewone katoenvlekbesies, groengroentestinkbesie, katoensaadbesie, rooispinmyt en bladspringer. Laatseisoeplae sal in 'n latere uitgawe van die tydskrif verskyn.

KATOEN NÁ DIE VIERBLAARSTADIUM, DIE BLOMKNOPSTADIUM ("SQUARE-FORMATION STAGE") EN BLOMVORMINGSTADIUM

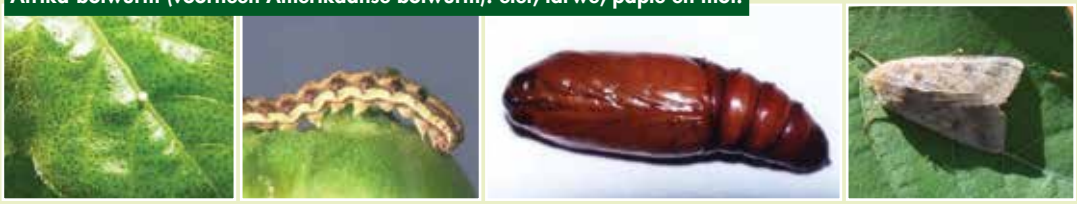
Die bolwurmkompleks, bestaande uit die Afrika bolwurm (Amerikaanse bolwurm of *Heliothis armigera*), rooibolwurm (*Diparopsis castanea*) en stekelbolwurms (*Earias biplaga* en *E. insulana*), is die enigste bolwurms op katoen wat die blomknoppe, blomme en bolle aanval. Kenmerkend het die bolwurms almal drie tot vier

pare vals pote, ook genoem abdominale pote of "prolegs", en drie pare borspote, terwyl ander blaarwurms soos landmeters, borspote en net twee pare abdominale pote het. Blaarwurms beweeg in 'n kruipbeweging op die plant. Die Afrika-bolwurm neem dikwels 'n dreigende of sfinks-houding in wanneer dit bedreig word.

Met die teenwoordigheid van *Bt*-tegnologie in al die bestaande kultivars in katoen (behalwe DP18RF), word bolwurms beheer deur die CryIAc en Cry2Ab-gene in die plante vir die beskikbare kultivars (DP1541, DP1531, DP1240, Candia en PM3225). Byna geen bespuitings word tans gedoen teen bolwurms in Suid-Afrika nie, wat tot 'n afname in bespuitings gelei het, van meer as 10 bespuitings per seisoen na slegs een of twee, maar laasgenoemde word nie teen bolwurms gerig nie. Hierdie een of twee bespuitings is tans wel nodig vir sekondêre plae soos plantluise, bladspringers of vlekbesies.

Tot dusver is geen klagtes ontvang dat die *Bt*-geen in Suid-Afrika nié effektief is teen bolwurms nie. Produsente word gemaan om te hou by die skuilplekvereistes ("refugia") soos vereis deur die tegnologie-houer. Ander blaarwurms is besoekers op katoen, wat min of geen skade doen, en nie beheer vereis nie. Met die afname in bolwurmbespuitings, blyk dit dat ander insekte wat in die verlede in 'n mindere mate deur die bolwurmbespuitings beheer is, nou 'n primêre plaag kan word. Hierdie sekondêre plae was altyd teenwoordig, maar kom nou meer na vore, aangesien

Afrika-bolwurm (voorheen Amerikaanse bolwurm): eier, larwe, papie en mot.



Rooibolwurm: eier, larwe, papie en mot.

Stekelbolwurm (*Earias biplaga*): eier, larwe en mot.

Stekelbolwurm (*Earias insulana*): larwes, papie en mot.

amper geen gif vir insekbeheer gespuit word nie. Dit is belangrik dat produsente in staat is om bolwurmeiers te identifiseer en dop te hou, veral in die skuilplekke. So kan bepaal word of bolwurms gedurende die huidige seisoen ekstra druk op die tegnologie plaas, en dit dalk nodig sou wees om te spuit indien die drempelwaarde bereik sou word. Die drempelwaarde vir bolwurms wat 'n bespuiting vereis, word bereik wanneer meer as vyf plante uit 24 plante wat verken is, met een of meer wurms gevind word.

"Die drempelwaarde vir bolwurms wat 'n bespuiting vereis, word bereik wanneer meer as vyf plante uit 24 plante wat verken is, met een of meer wurms gevind word."

Plantluise

Plantluise kom gewoonlik reeds vroeg in die seisoen voor. Hulle kan steeds 'n probleem wees teen middelseisoen, veral wat betref die heuningdou wat gelaat word op katoenplante, en wat fungusgroei op plante en later op vesel veroorsaak. Indien heuningdou voorkom, is dit reeds 'n ernstige probleem, en moes verkieslik reeds gespuit gewees het. 'n Hewige infestasie van plantluise beskadig die groeipunte van groot plante en belemmer vegetatiewe groei. Let op die drempelwaarde vir bespuiting en natuurlike vyande soos bespreek in die vorige uitgawe.

Plantluise en skade op die groeipunt (links), en heuningdou op blare (regs).

Bladspringers

Bladspringers (*Jacobiella fasciata*) kan voorkom tydens die vroeë-, middel- en laatseisoen, en is bespreek in die vorige tydskrifuitgawe. Omdat bladspringers so vinnig beweeg, is dit amper onmoontlik om hulle te bespuit met 'n kontakmiddel, terwyl 'n sistemiese middel meer effektief is as hulle vroeg in die seisoen beheer word. Sou bladspringers rondvlieg terwyl daar deur die katoen geloop word, is daar heel moontlik te veel van hulle. Die drempelwaarde wat 'n bespuiting vereis, word bereik wanneer daar meer as drie bladspringers in totaal op drie blare per plant voorkom, en op meer as 12 uit 24 plante wat verken is. Bladspringers kan lei tot 'n pers verkleuring van blare in die middel-laatseisoen, wat reeds dui op 'n té hoë konsentrasie van dié insekte.

Bladspringerskade gesien as 'n rooi-pers verkleuring van blare, en 'n onvolwasse bladspringer (regs).

Witvlieë

Witvlieë (*Bemisia tabaci*) kom voor op katoen, maar kom selde in groot getalle voor wat bespuiting regverdig. Die nimfstadium is ovaalvormige plat insekte, en predatoriese myte, spinnekoppe en ander predatore hou hulle gewoonlik onder beheer. Harige katoen bied weerstand teen bladspringers, maar die harigheid op die blare kan verhoed dat predatoriese insekte die witvliegnimfies kan bykom, en witvliegpopulasies kan soms toeneem op harige variëteite. Witvlieë kom dikwels saam met plantluise of bladspringers voor.

Witvlieë op bolle (links) en aan die onderkant van blare (regs).

Geen drempelwaarde is beskikbaar vir verkenning nie, en 'n sistemiese middel behoort effektief te wees, sou dit nodig wees om te spuit. Witvlieë veroorsaak 'n poeieragtige bedekking op die blare en kan die veselkwaliteit beïnvloed deur fungusgroei wat voorkom op heuningdou, wat afgeskei word deur die insekte en dan sodanig die vesel verkleur, later in die seisoen.

Blaarmyners, wolluise, "tip-wilters"/ groeipuntverwelkbesies, *Nisotra*-kewers, sprinkane, langhoringkrieke

Ander insekte behalwe predatore en bestuiwers kom op katoen voor en sluit blaarmyners, groeipuntverwelkbesies, *Nisotra*-kewers, verskeie sprinkane, langhoringkrieke, en wolluise in. Hierdie insekte kom sporadies voor, maar rig nie veel skade aan nie, behalwe dikwels blaarskade. Geen inligting is beskikbaar dat hierdie insekte in groot getalle voorkom en oesverliese of

Blaarmyners/bladmyners (links) en wolluise/"mealybugs" (regs).

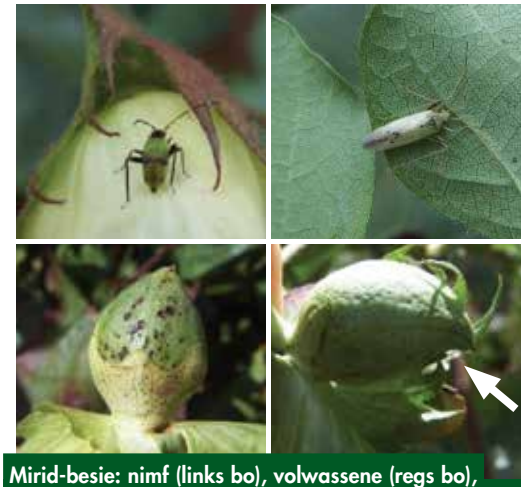
Sprinkane (links) en langhoringkrieke (regs).

Nisotra-kewer (links) en groeipuntverwelkbesie (Coreidae) (regs).

veselkwaliteitverliese veroorsaak in Suid-Afrika nie. Heelwat produsente merk wolluise op, maar hul voorkoms blyk seisoenaal en sporadies te wees. Wolluise word nie geklassifiseer as 'n werklike plaag op katoen in Suid-Afrika nie.

"Mirid bugs"/Mirid-besies

Mirid-besies kom sporadies voor, maar het al in die verlede in sekere gebiede (Pongola-omgewing) 'n groot impak gehad deur pasgevormde bolle te beskadig. Die besies beskadig die jong bolle, deur hulle monddele in die bolle in te druk, en die vesel te verkleur en vormende saad te beskadig. Dit veroorsaak ook die kenmerkende papegaaibekbolvorm (sien foto regs onder). Indien dit in groot getalle voorkom, sal 'n kombinasie kontak- en sistemiese middel die insekte beheer. Geen drempelwaardes is beskikbaar nie, maar produsente moet bedag wees op hierdie insek.



Mirid-besie: nimf (links bo), volwassene (regs bo), bolskade (links onder), papegaaibekbolvorm (regs onder).

Groengroentestinkbesies (*Nezara viridula*)

Die meeste stinkbesies kom redelik laat in die seisoen voor, of aan die einde van die middelseisoen, wanneer jong bolletjies gevorm word. Gewone katoenvlekbesies en grys katoenvlekbesies sal in 'n volgende uitgawe bespreek word, aangesien hulle meer op oopgebarste bolle voorkom, en sodra die saad gevorm word.

Nezara-besies kom algemeen voor in die middelseisoen, en kan ernstige gevolge hê as hulle in groot getalle voorkom. Hulle suig die sap van jong bolletjies en kan ook die papegaaibekbolvorm veroorsaak soos die Mirid-besie.

Die besies kom op ander gasheerplante voor soos groente en vrugtebome. Klagtes oor moontlike piretroïedweerstand op ander gewasse doen die rondte, en produsente moet bedag wees op moontlike toenemende getalle op katoen dié seisoen. Hulle lê ook hulle eiers op katoen, maar die uitbroei van die eiers word gewoonlik in bedwang gehou deur predatore. Geen drempelwaarde is beskikbaar nie, en gewoonlik is hulle net in klein getalle teenwoordig. Hulle is baie vlugtig, en soos vir die Mirid-besie, sou 'n kombinasie kontak- en sistemiese middel hulle beheer.

SLOTSOM

Produsente word gemaan om nie te vinnig te gryp na chemiese beheer nie. Dis dikwels nie nodig om vir enige insekte te spuit nie, en die saadbehandelings gee vroeëseisoenbeheer. As piretroïedes nie vroeg in die seisoen gespuit word nie, neem plantluise en witvlieë gewoonlik nie toe nie. Gebruik 'n geïntegreerde plaagbeheerstrategie en gee kans vir die predatore om hulle werk te doen.

Met erkenning aan die volgende persone of instansies vir insekfoto's:
- T. Joffe, N. du Toit en A. Bennett (voorheen Agri-Biotech Research Consultancies cc)

Afdrukke:
- *E. insulana* mot: Daniel Morel
- *E. insulana* papie: www. agrologica.es
- *E. insulana* larwe: www.mindenpictures.com
- *Diparopsis castanea* papie: S. Broodryk; mot: www.africanmoths.com
- Wolluise: www.pestnet.org
- Coreidae: wikivisually.com

Groengroentestinkbesies (*Nezara viridula*).

"Produsente word gemaan om nie te vinnig te gryp na chemiese beheer nie. Gebruik 'n geïntegreerde plaagbeheerstrategie en gee kans vir die predatore om hulle werk te doen."

KATOENSAAD-SITUASIE

deur dr. Annette Bennett, Katoen SA

Mahyco-saad.

Die kultivars DP1541 B2RF, DP1531 B2RF, DP1240 B2RF, PM3225, BG2RF en Delta 18 RF word deur Mahyco in Groblersdal verskaf. Katoensaad is ook beskikbaar by Mahyco-verspreiders in elke gebied.

Katoensaad word gewoonlik deur die pluismeulens versprei deur middel van agente. Kontak die pluismeule in jou area om uit te vind waar jy katoensaad kan bestel. Katoensaad word in 20 kg-sakke verpak, behalwe Paymaster PM3225, wat in 5 kg-sakke met saad vir die skuilplek ingesluit, verpak word. Saadinligting oor die kultivar en die sertifisering verskyn aan die bokant van die sak. Dit is belangrik om te weet hoeveel saad daar min of meer in 'n sak is, om sodoende te bereken hoeveel saad gebruik gaan word. Die gemiddelde saadtelling (pitte) per 20 kg-sak is as volg:

- DP1240: 11 400
- DP1431: 11 400
- DP1541: 12 200
- Candia: 12 300

Saadpryse wissel tussen R3 000 en R4 500 vir 'n 20 kg-sak. Met een sak saad van 20 kg kan die produsent ongeveer 1,67 ha onder besproeiing plant, en teen 10 kg saad per hektaar 'n stand van 100 000 plante per hektaar verkry. Alles hang af van die plantestand per hektaar, wat weer afhang van hoe ver die plante binne die ry vanmekaar geplant word, asook of dit enkelrye, dubbelrye, of treinspoorrye is. Om 'n plantestand van ongeveer 60 000 plante per hektaar te kry, word ongeveer 6 kg saad per hektaar geplant. Vir droëlandproduksie is 'n plantestand van ongeveer 40 000 plante per hektaar voldoende.

Bogenoemde kultivars gee goeie resultate, soos gesien in die strookproewe die afgelope seisoen. Die Candia-kultivar was in Oktober 2019 steeds onder bestuur van Bayer, en transaksies met 'n voornemende koper is nog nie gefinaliseer nie. Candia-saad wat beskikbaar was vir die huidige seisoen, is deur Bayer vermeerder, en is reeds toegeken aan verspreiders volgens 'n besluit wat deur Bayer geneem is.

Katoen SA is in dringende gesprek met Bayer om die saadvermeerdering van Candia-saad te bewillig, om te verseker dat daar genoeg saad vir die 2021/22-seisoen sal wees. Candia-saad wat in die afgelope 2018/19-seisoen vermeerder is, sal vir aanplantings in die 2020/21-seisoen beskikbaar wees.

COTTON TECHNOLOGIES

by Dr Annette Bennett, Cotton SA

At present, all cotton varieties available in South Africa contain the Bollgard 2® and Roundup Ready Flex® traits. These include DP1531, DP1541, DP1240, Candia and PM3225. The Delta 18RF variety is available for planting the refuge area and this variety contains only the Roundup Ready Flex® trait, which provides tolerance against glyphosate for over the top (OTT) spraying until late in the season. Currently Bollgard 2 gives adequate bollworm control and no evidence of bollworm resistance has surfaced in South Africa.

In some other countries like Australia and the USA, the Roundup Ready Flex® trait is complemented by a further development of the Roundup Ready Xtend Flex® trait. This trait gives an added advantage in weed control, with the cotton showing tolerance to three active herbicide compounds, i.e. glyphosyte, glufosinate and dicamba.

The added advantage of glufosinate and dicamba is that it offers alternative control of tough weeds such as Yellow Nutsedge, Palmer Amaranth, Wandering Jew and others. It also provides different modes of action that may be used in a weed resistance management (WRM) programme with glyphosate in fields containing glyphosate-resistant weeds such as *Amaranthus palmeri*.

The developers of these technologies have combined them with second- or third-generation bollworm-resistant traits. Xtend Flex technology is found in combination with Bollgard 3®. Since Xtend Flex is not deregulated in South Africa (i.e. has not been registered for commercial use), there are no commercially available cotton varieties in South Africa with these traits. In other countries, these are marketed as Bollgard 2 or Bollgard 3 Xtend Flex products.

Bollgard 3 varieties produce three proteins, namely Cry1Ac and Cry2Ab (for bollworm control) and Vip3a protein. The former two proteins are currently owned by Bayer, while the Vip3A protein was developed by Syngenta

as Cot102 cotton, and is an alternative option for control of lepidopteran pests, which includes cutworm (http://bch.cbd.int/database/record.shtml?documentid=14992). Seed companies have agreements with patent holders and seed suppliers to commercialise these technologies.

Some seed varieties with the new herbicide-tolerant traits and bollworm resistance are available from Cotton Seed Distributors (CSD) in Australia, while others are available from the USA (Bayer). Very few cotton cultivars are still available with Bollgard 2 technology, and if so, only in combination with Xtend Flex. Cotton SA has been communicating with global seed and technology companies to access these varieties. However, both the Xtend Flex technology and Bollgard 3 would still need to be deregulated in South Africa before becoming commercially available. The process of deregulation requires that at least two years of efficacy trials under contained field trial (CFT) conditions must be conducted. Patent holders need to be sure that cotton provides a sound business prospect before deciding to advance the new technologies. Cotton SA continues to communicate closely with Bayer concerning the future deregulation of Bollgard 3 and Xtend Flex.

Other technologies that are available globally include GlyTol™ Liberty Link™, which is currently under registration in South Africa. This trait provides additional herbicide tolerance. The LibertyLink trait is widely available in high-yielding, high-quality FiberMax® and Stoneville® cotton seed varieties (https://agriculture.basf.com/us/en/Crop-Protection/GlyTol.html). It is also offered stacked with GlyTol®, which provides growers with the option to choose the non-selective weed control method they need. FiberMax and Stoneville varieties stacked with GlyTol and the LibertyLink trait are the first stacked cotton varieties with full tolerance to both Liberty and glyphosate herbicides for flexible, reliable weed resistance management.

> **"At present, all cotton varieties available in South Africa contain the Bollgard 2® and Roundup Ready Flex® traits."**

In addition, BASF offers the LibertyLink trait stacked with GlyTol and Bollgard 2 in high-yielding FiberMax and Stoneville varieties for effective weed control options and protection against bollworms. BASF commercialised these varieties globally with combinations of GlyTol LibertyLink (glyphosate and Liberty resistance), GlyTol, TwinLink or TwinLink Plus (bollworm and armyworm resistance) traits. The GlyTol® trait technology delivers season-long, in-plant tolerance to glyphosate herbicide, giving growers a wide window for post-emergence applications (https://agriculture.basf.com/us/en/Crop-Protection/GlyTol.html). Liberty (glufosinate) is a contact herbicide, while glyphosate products have a systemic mode of action. Glufosinate is a glutamine synthase inhibitor while glyphosate is a 5-enolpyruvylshikimate-3-phosphate (EPSP) synthase inhibitor. The only thing the two herbicides have in common is that they inhibit amino acid synthesis, although not the same amino acids. These herbicides are not interchangeable. If glyphosate is used on LibertyLink varieties, they will die. Likewise, if Liberty is used on Roundup Ready® (RR) varieties, those varieties will die (https://www.ilsoyadvisor.com/on-farm/ilsoyadvisor/what-liberty-herbicide). The LibertyLink gene is available in a variety of crops, including corn, cotton, canola, sugar beet and soya bean. LibertyLink technology is not available in South Africa yet. There are no plans for commercialisation currently.

Another technology that is not available in South African cottonseed, is Wide-strike Genuity RR Flex, now owned by Corteva AgriScience. It is often combined with Bollgard 3 (Bayer is the patent holder), but is not deregulated and not commercialised in South Africa yet.

It is imperative to increase cotton production in South Africa in order to make cotton a compelling business opportunity for patent holders to commercialise these technologies in future.

NITROGEN (N) IN COTTON,

a Loskop case study

by Dr Tilla van der Westhuizen, C Fourie and J de Bruin (ARC-IC)

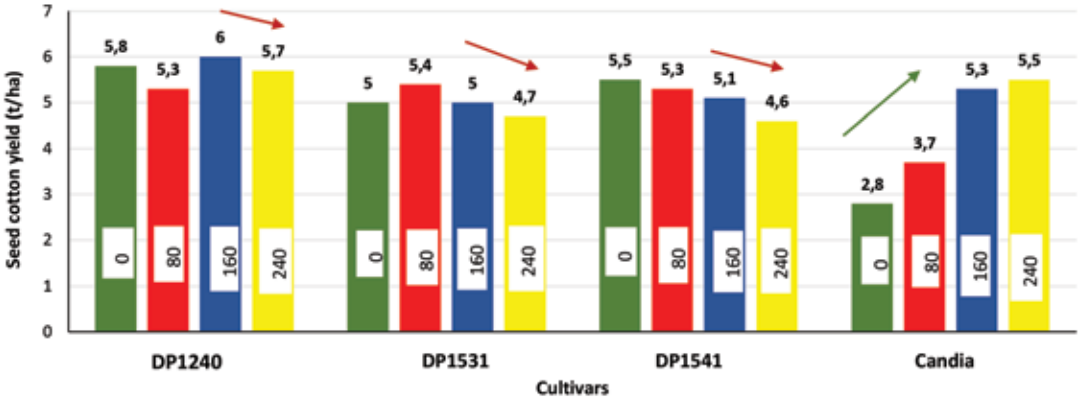
A nitrogen (N) trial was carried out and cotton was planted on 26 November 2018 at Groblersdal. A split application of nitrogen was applied at a ratio of 30:70, to apply 30% of each nitrogen treatment as a first application, followed by a later application of 70% of the total dosage. Treatments included a total amount of nitrogen at 80, 160 and 240 kg N/ha respectively.

Limestone Ammonium Nitrate (LAN 28) was applied as a broadcast over the cotton rows at four and seven weeks after planting.

The inherent soil and water nitrogen content added to the total amount of 80 kg N/ha applied. This availability of nitrogen in the soil and water plus the 70% given at seven weeks after planting led to excessive vegetative growth for DP1531 and DP1541. The final plant height for DP1541 was 1,8 m.

"Pix" was applied at 700 ml/ha during the first two weeks in January 2019. This, however, was not sufficient to inhibit plant growth in relation to the plant growth as a result of the optimum irrigation applied, and temperature-

Figure 1. Seed cotton yield of the nitrogen trial at Groblersdal, 2018/2019.



growing conditions during this trial. These management practices resulted in an increase of 2,7 t/ha seed cotton yield for Candia. The results of the 2018/2019 season showed that if too much nitrogen is applied on DP cultivars, it can lead to a decrease in yield and maturity of fibre of these cultivars (See Figure 1 and Table 1). In the case of the cultivar DP1240, the amount of nitrogen applied at 160 kg N/ha was sufficient to give a yield of 6 t/ha seed cotton. The application of 240 kg N/ha on DP1240 led to a decrease in yield. The additional 80 kg N/ha was not only costlier, but it caused a decrease in the yield of 0,3 t/ha seed cotton, and varied low micronaire among all the cultivar treatments tended to be too low.

In Table 1, the reason for the low micronaire for DP1531 and DP1541 could be attributed to the fact that DP1531 and DP1541 are rank growers. Thus, the plants form dense stands, with excess nitrogen available for the plant, with excess irrigation, promote vegetative growth and high plants. The shadowing of lower bolls reduces the carbohydrates available for the bolls to reach maturity, which in turn can influence seed cotton yield. Carbohydrates are necessary for fibre formation, i.e. fibre thickness (micronaire), as the cotton fibre consists of cellulose of which the backbone is carbohydrates. As a result, cotton that forms a dense canopy and is over-fertilised with nitrogen often has a low micronaire. The bolls in the upper plant parts also do not have enough time to mature the fibre. Candia has an inherent characteristic of low micronaire, which was the result for most localities during the past growing season.

Table 1. Quality parameters measured at the Loskop nitrogen trial 2018/2019.

Cultivars	Nitrogen (kg/ha)	Micro-naire	Length (inches)	Strength (g/tex)
DP1240	0	4,2	1 3/16″	30,5
DP1240	80	3,6	1 3/16″	28,9
DP1240	160	4	1 3/16″	30,8
DP1240	240	4	1 7/32″	31,1
DP1531	0	3,8	1 3/16″	29,5
DP1531	80	3,9	1 7/32″	28,4
DP1531	160	3,3	1 3/16″	28,5
DP1531	240	3,4	1 3/16″	29,2
DP1541	0	3,2	13/16″	29,6
DP1541	80	2,7	1 7/32″	28,7
DP1541	160	2,6	1 7/32″	28
DP1541	240	3,3	1¼″	29,7
Candia	0	4,1	1 3/16″	29,5
Candia	80	3,9	1 7/32″	28,9
Candia	160	3,3	1 3/16″	28,8
Candia	240	3,8	1 5/32″	29,1

Table 2. Recommended nitrogen rates for cotton cultivars

Cultivar	Recommended rate
DP1240 B2RF	160 kg N/ha
DP1531 B2RF	80 kg N/ha
DP1541 B2RF	80 kg N/ha
Candia BGRF	160 kg N/ha

CONCLUSION

- A high seed cotton yield of 6 t/ha is possible for the cultivar DP1240 when 160 kg N/ha is applied.
- When N/ha is increased to 240 kg N/ha, seed cotton yield may decrease for the cultivars DP1240, DP1531 and DP1541.

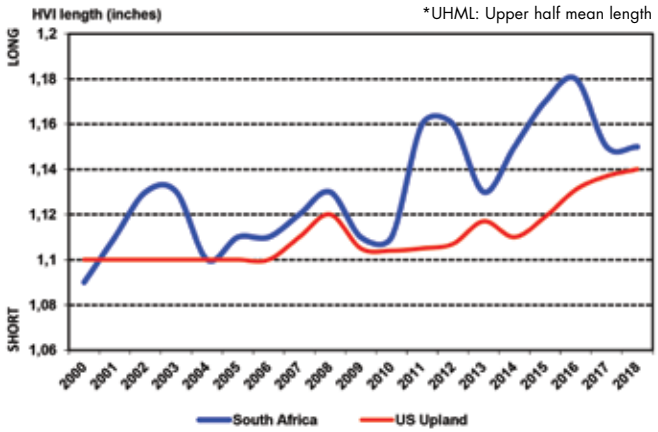
Cotton SA, Quality Control Division.

SOUTH AFRICAN COTTON VERSUS US UPLAND COTTON

by Gert Klindt, Cotton SA

South African cotton compares well with the USA's Upland cotton. So much so that our classification system will change to take the format of Middling, Strict Middling, etc., and when looking at fibre quality, the following applies:

Figure 1: Average staple length (UHML*) distribution.



> "Regarding the average fibre length, South African cotton compares favourably with the US Upland cottons."

Figure 2: Average micronaire distribution.

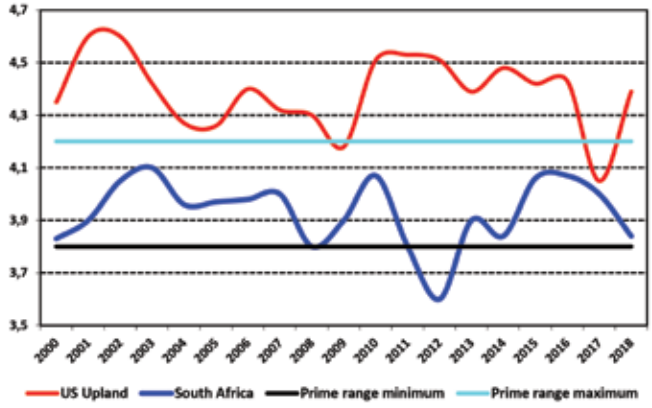
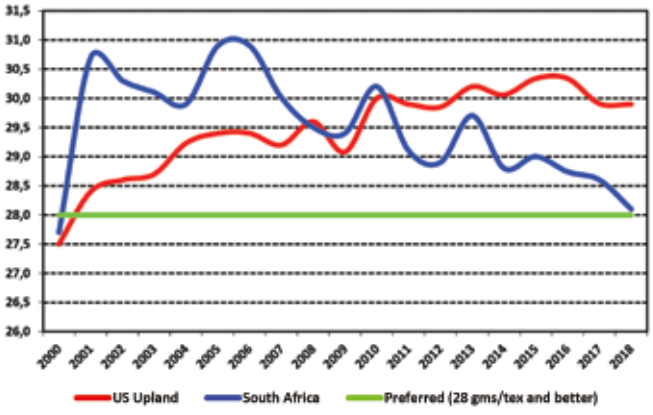
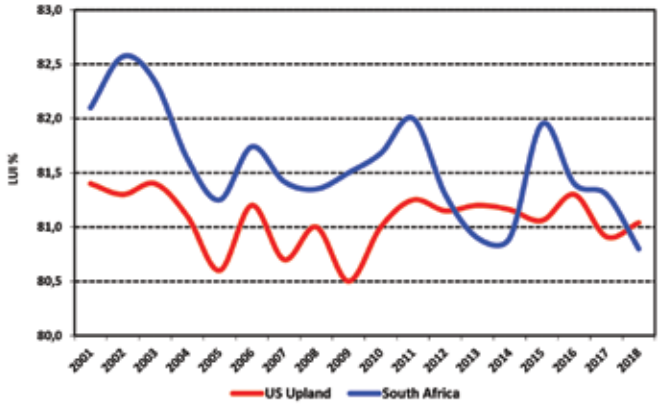


Figure 3: Average strength distribution grams/tex – HVI* level.



*HVI: High-volume instrument

Figure 4: Length uniformity distribution.



Regarding the average fibre length, South African cotton compares favourably with the US Upland cottons, as shown in Figure 1 (average nearly 30 mm or 1,14 inches HVI length).

South African cotton shows good fibre fineness, between the ranges of 3,80 to 4,20, which can attract premium prices (see Figure 2).

Due to adverse weather conditions, the average fibre strength shows a slightly lower trend, compared to that of the previous years. Depending on production practices, such as fertiliser additions, soil health, planting time, and the length of the season in relation to heat units available for the fibre to ripen, fibre strength can be affected. Initiatives are being undertaken in production areas to investigate the effect of potassium and boron on fibre strength. Most South African cotton is still above 28 grams/tex, which is the preferred level (see Figure 3).

Figure 4 shows the distribution of the average fibre length uniformity index (LUI) of South African cotton. Fibre uniformity is within the medium range of 81%, though it had a slight downward trend. It is hoped that better results will be achieved in the present season.

SUMMARY ON RESEARCH TRIALS OF THE 2018/19 SEASON

by Dr Annette Bennett, Cotton SA

Research trials are requested annually by members of the South African Cotton Producers' Organisation (SACPO) in each cotton-producing region, and are approved by the research committee. Funding originating from the levy contribution of producers, is then provided for the approved trials. Research is done on a contract basis with service providers.

For the past 2018/19 season, some strip trials, three "Pix" trials and two nitrogen trials were performed by Dr Tilla van der Westhuizen and her technical team from the ARC-IC. The Greenhouse trial was performed by Dr Lawrence Malinga and Simphizo Setswhayo from the ARC-IC. Strip trials in Pongola, Mkuze and Komatipoort were performed by Jurie Steyn (private contractor), and the strip trials in the Vaalharts region, by Jurg Bester (Vaalharts Gin).

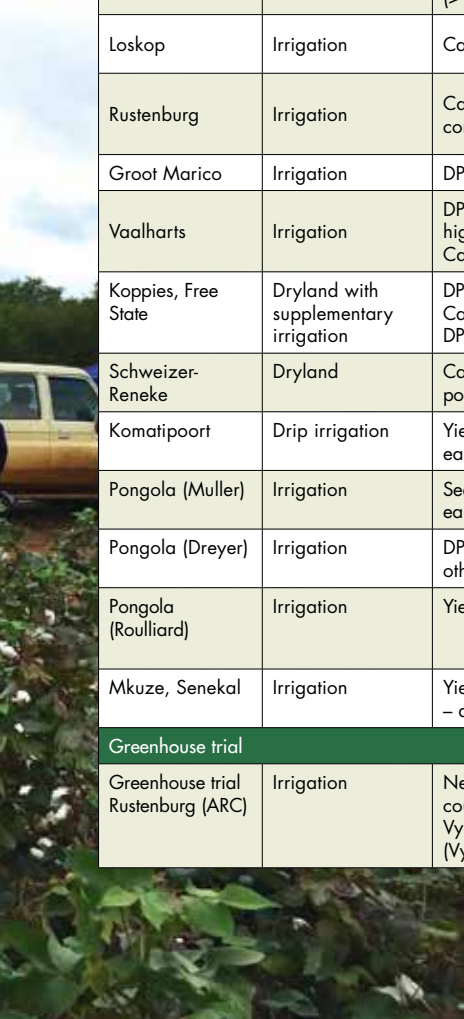
Producers are thanked for their willingness and cooperation with the running of the trials. It would not have been possible to do without the contributions that farmers make in providing management, land, and seed.

A farmers day at Komatipoort.

Jurie Steyn (left) and Dr Tilla van der Westhuizen (right) discussing the trials at a farmers day.

Table 1: Summary on research trials of the 2018/19 season.

Trial name and locality	Irrigation or dryland	Remarks on seed cotton yield	Remarks on fibre quality
Pix/variety trial Christiana	Irrigation	DP1240 high seed cotton yield at low Pix dosages (250:500:250 ml/ha)	Candia low micronaire at low Pix dosage
Pix/variety trial Loskop	Irrigation	Candia highest seed cotton at low Pix (250:500:250 ml/ha)	Candia tends to give low micronaire (< 3,5) at high Pix (300:400:800 ml/ha); DP1531 low strength (< 28g/tex) at low Pix; DP1541 low strength (< 28g/tex) at low Pix
Pix Schweizer-Reneke – only DP1541 planted	Dryland	High dosage (300:400:800 ml/ha) gave highest seed cotton yield	Good quality
Fertiliser trials			
Fertiliser trial Christiana	Irrigation	DP1531 highest seed cotton yield	DP1541 short fibre at low nitrogen concentrations (total 60 kg N/ha)
Fertiliser trial Loskop	Irrigation	DP1240 with 160 kg N addition gave 13% increase in seed cotton yield	Candia low micronaire at 80 kg N/ha and 160 kg N/ha
Cultivar strip trials			
Loskop	Dryland	Sicot 74BRF highest seed cotton yield (> 2 t/ha); DP1541 (1,9 t/ha)	Fibre quality all good – length, strength and micronaire
Loskop	Irrigation	Candia highest seed cotton yield (> 4,4 t/ha)	Candia good qualities; slightly low micronaire observed in Sicot 74BRF
Rustenburg	Irrigation	Candia low yield, DP1531 highest yield, compared well with other cultivars	Candia showed low micronaire under irrigation and with late planting date. DP1541 short fibres, others good quality
Groot Marico	Irrigation	DP1531 highest yield	Candia low micronaire
Vaalharts	Irrigation	DP1240 (6,1 t/ha) and DP1541 (6,2 t/ha) highest yields; DP1531 (5,3 t/ha); Candia (5,1 t/ha)	All good qualities
Koppies, Free State	Dryland with supplementary irrigation	DP1531 highest yield (4,2 t/ha); Candia (2,7 t/ha); DP1541 (2,1 t/ha); DP1240 (2,3 t/ha)	Candia low micronaire as well as DP1541 – late planting date in December
Schweizer-Reneke	Dryland	Candia highest yield, no differences in plant population of 100 000/ha or 60 000/ha	All good qualities, including Candia
Komatipoort	Drip irrigation	Yield not available. DP1541 and DP1531 early boll-burst	Good strengths, good micronaire and lengths
Pongola (Muller)	Irrigation	Seed cotton not weighed separately. DP1531 early boll-burst	Delta 18RF good qualities as well as other cultivars
Pongola (Dreyer)	Irrigation	DP1240 highest yield (5,5 t/ha); other varieties above 4,5 t/ha	Good qualities. Candia gave high micronaire (5,3)
Pongola (Roulliard)	Irrigation	Yields not available. DP1531 early boll-burst	Low micronaire in Candia, and short lengths in DP1531 (cotton recovered from hail)
Mkuze, Senekal	Irrigation	Yields highest in DP1240, DP1531 earlier – all good yields above 4,5 t/ha	DP1240 showed high micronaire (5,2) (late replanting in December)
Greenhouse trial			
Greenhouse trial Rustenburg (ARC)	Irrigation	Nemacur gives good control, low larval counts in roots and soil; combination of Vydate and Nemacur looks promising (Vydate not registered)	



PARTNERSHIPS BETWEEN INDUSTRY AND ACADEMIA

Feedback on a colloquium held by the Faculty of AgriSciences, Stellenbosch University (SU), titled "The Evolution of the Partnership between Industry and Academia". Prof. Johann Kirsten, Director: Bureau for Economic Research opened the workshop held in September this year at Stellenbosch University. Prof. Danie Brink, the dean of AgriSciences presented institutional perspectives.

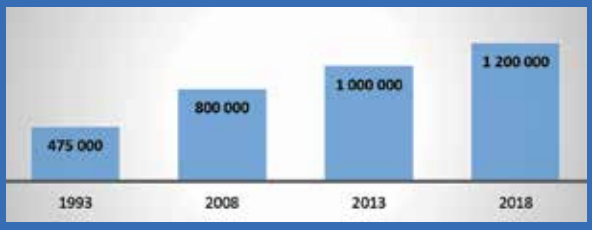
Prof. Brink explained institutional transformation over time (see summary on the right).

Among others, Francois Strydom (Agbiz) gave valuable inputs emphasising the fact that research in agriculture must have a competitive advantage, and must benefit from an increase in yield, quality and access to better markets.

Nick Dicey (Hortgro) gave an overview of the contributions made by this organisation to research. He mentioned that the horticultural industry takes greater control of research and develops alliances with key research organisations. One of their aims is to build and retrain key industry capacity. The levy structure includes a 50% levy

SUMMARY: TRANSFORMATION IN HIGHER EDUCATION IN SOUTH AFRICA

- **Student enrolments**



- **Institutional transformation**

2000	Merger of Faculties of Science and Agriculture (UKZN, UP, UFS, NWU)
2003	Restructuring of 36 universities into 23
2006	Merger of Faculties of Agriculture and Forestry at SU Consolidation of 18 departments into the current 11

- **Funding**

2004	New funding model for higher education institutions = Government + Student + External
2000 – 2010	State contribution to university education declined from 50% to 40%
2015 – 2018	"Fees must fall"/free higher education
2019+	Weakening of postgraduate funding and research and innovation (R&I) https://www.pwc.co.za/en/publications/funding-public-higher-education-institutions-sa.html

funding research, since technical information forms the foundation of the industry. Levies are also used for problem-solving and capacity building. At present 53 bursaries in total are given for postgraduate research in the industry.

In the cotton industry, an attempt was made to start building capacity, by supporting two students in 2019 for an MSc and an Honours degree. Dicey also mentioned that there is a great deal of pressure to access public funding, and that commodities need to form relationships with academic institutions and source capable people with the relevant training to do applied research, to form a knowledge source for the commodity. It is important for commodities to maintain strong links with industry and the universities.

De Wet Boshoff of the Animal Feed Manufacturers' Association (AFMA) gave an interesting presentation on the role that AFMA plays in research to satisfy the client, and that the emphasis should be on marketing and not only on production. He mentioned that it is important to find the right people to develop the expertise in centres of excellence to become a resource for research. He discussed the importance of the "value chain approach for funding research", and in particular, the grain and oil seed value chain.

For cotton, more research could be directed to look at aspects of the value chain. For instance, protein content of fuzzy seed as a by-product, and the possible differences of seed content derived from cotton produced under dryland, versus irrigated conditions between varieties. This could benefit the specific needs of the client who creates the demand for these products.

Sean Walsh from Kaap Agri mentioned three focus areas, i.e. digital transformation, customer relationship management, and the role of the internet, referring to precision of land management (drones), data management, and telematics.

Gerhard Martin (WineTech) said that the industry has to consider the decisions that affect the consumer. For cotton, the emphasis should be on what the spinner wants and how the producer and the gin can satisfy the needs of the spinner and thereby serve the textile pipeline.

Vaughan Hattingh (Citrus Research International/SU) discussed three important areas for research, which include the following:

- Market access with reference to food safety and phytosanitary issues. For cotton, as a commodity, it is important to stimulate better public awareness of textiles carrying the mark of the Better Cotton Initiative (BCI) and its advantages for the environment and sustainability.
- Biosecurity.
- Climate resilience.

Hattingh also mentioned that there is a need to find production practices that reduce the possibilities of residues, and that industry should reshape sustainable partnerships with commodity organisations. For cotton to be sustainably planted and produced, continuous partnerships need to be established and honoured to create a future climate for research and advancement in technology.

Marinda Visser (Grain SA) gave valuable insights into the need to identify failures of government funding, and said that commodities must help to align industry and government R&I priorities. By bridging this gap between academia and industry, it could bring about better access to technology and seed, and skills development, and emphasise the importance of R&I spending. She suggested forming consortiums between private companies and universities, and that institutional levies should be capped and spent on research on crop protection, human capital development, climate resilience, and crop improvement.

Cotton research in South Africa needs a boost, and the creation of close partnerships with industry and universities. For the 2019/20 season, 25 research projects have been approved by the Technical Research Committee of Cotton SA. No other cotton research is done in South Africa, apart from ad hoc new registration of chemicals by private companies, making use of consultants, or through their own research and development departments.

Cotton research by the Agricultural Research Council (ARC) is done on a contract basis, and includes projects requested by the South African Cotton Producers' Organisation, which is approved by the research committee.

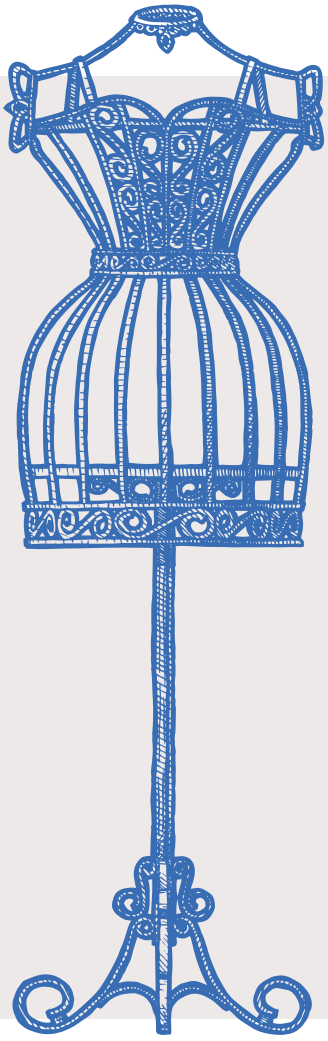
Some of the ginneries have taken it upon themselves to do research through their extension services and their own departments. With the possible introduction of new technologies, a more coherent initiative must be undertaken to identify capacity and to bring resources together to do relevant research.

The story of a DRESS

by Jackie May, the editor and founder of Twyg

Tanya Aucamp (Cotton SA), Lesego Maloka (Pone Creatives), Julia Ntkiese (model), Mzukise Mbane (Imprint ZA), Jackie May (Twyg), and Brent Greenblatt (Svenmill).

Imprint ZA's 100% South African cotton dress was a showstopper at the Twyg Sustainable Fashion Awards hosted in Cape Town on 19 September 2019. This attention-grabbing dress was largely inspired by an Imprint ZA African bridal gown that was nominated as the Most Beautiful Object in South Africa 2019. Its silhouette resembles that of Victorian-inspired African dresses, worn by Namibian Herero women. When model Julia Ntkiese arrived at the awards event, she captured everyone's attention.



Early in August, designer Mzukise Mbane of Imprint ZA met with textile designer Lesego Maloka of Pone Creatives. They agreed on using a 100% cotton fabric, made from locally spun yarn containing South African cotton fibre. Cotton SA, in its drive to create awareness of the attributes of cotton as a preferred raw fibre among local designers, supported this initiative and sponsored the dress. The fabric, designed by Maloka, was used by Mbane to create an "Imprint ZA" dress, in order to raise awareness about the South African cotton industry. Everyone who attended the fashion awards event knows a whole lot more about home-grown cotton than they did before 19 September!

Maloka called her textile design used for the dress "makala", which means charcoal in Sitsonga. She said: "This design developed from an inspiration drawn from my childhood experience of seeing women from the Tsonga tribe, selling street-roasted peanuts". Drawing and translating the shapes resulted in a peanut shape. "I wanted to celebrate and embrace the women for their devotion to the daily task of making fires and roasting peanuts in the big pans," she said.

Using cotton as a fibre gave Mbane and Maloka an opportunity to explore and be part of sustainable change within our country. "Being able to source a yarn grown and spun in South Africa gave us an opportunity to experiment with the possibilities of using local yarn. It allowed us the convenience of finding the best look and feel without waiting, and having to work with whatever is available," said Maloka. The textile was woven at Svenmill in Cape Town.

The event was the initiative of Twyg, a non-profit company (NPC) working to inspire a shift towards a sustainable lifestyle among consumers. The organisation's main focus is fashion, and the local clothing and textile industry. This industry has been decimated by cheap imports and more than 100 000 people have lost their jobs since 2000. Earlier this year, Western Cape MEC for Economic Opportunities, Beverley Schäfer said: "We import too much and we produce too little. As a country, our imports of clothing, textiles and leather goods have rocketed from just over R5 billion in 2000 to almost R60 billion now."

There is little doubt that designers want to buy local fabrics to support the local industry. Not only is there an emotional response to support the local industry, there is also real interest to follow sustainable and ethical fashion practices. During this year's September fashion week season, the dominating trend on the international runways was "sustainability". This trend manifested itself in different ways. One brand showed its looks on a tree-lined runway, others committed to becoming carbon-neutral, some showed recycled or upcycled collections, all of them were keen on telling a "green story" to promote sustainability. At the African Fashion International (AFI) fashion week in Johannesburg, Laurence Airline drew attention to environmental issues, with a collection called "We are all children of earth". The other South African fashion week, SA Fashion Week, has committed to promoting "eco-friendly" fashion and it made sustainability practices the criteria for its New Talent competition.

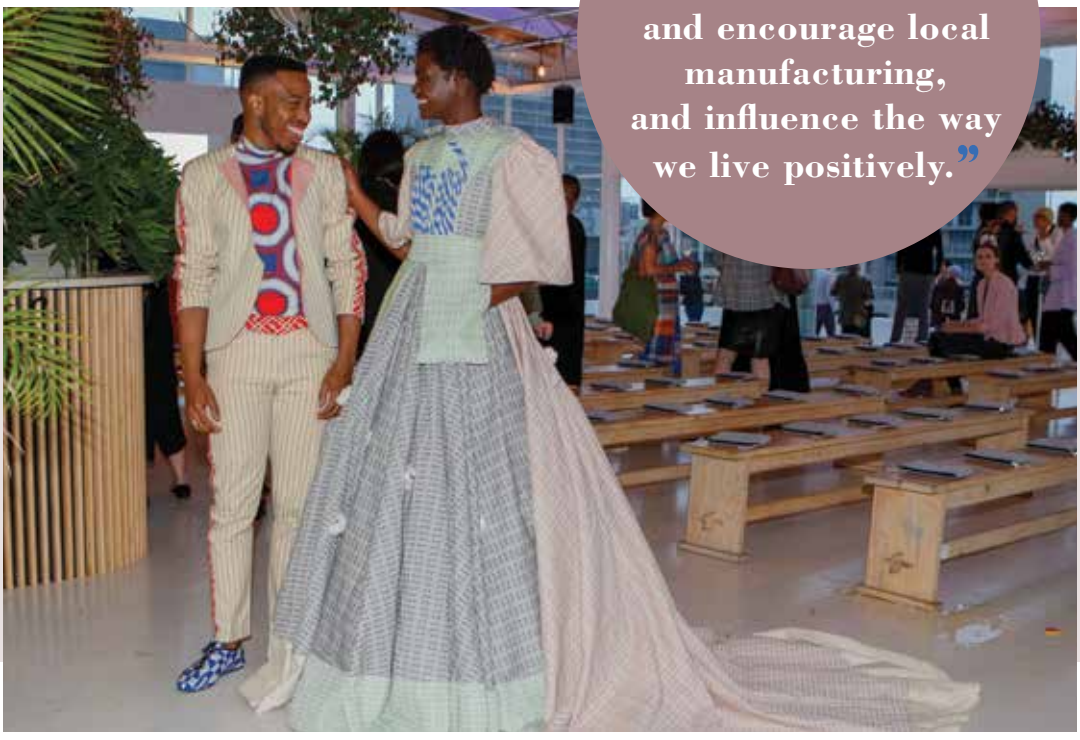
So what does this mean for South African designers? Buying local gives designers more control over their supply chain. They would understand the origin of the cloth they use. Most of the designers with whom I engage, employ between one and five skilled employees. Many make a living creating garments with cheap imported fabrics. The results of a designer survey conducted by Twyg earlier this year indicated that access to affordable, local and sustainable fabrics was the biggest barrier to creating sustainable collections.

While the South African cotton industry has grown by 800% since 2013, for young designers it is still not easy. Designer and owner of Artclub and Friends, Robyn Keyser said: "We all want to promote the concept of sustainability, but we can't afford to buy local and/or sustainable fabrics produced under sustainable conditions." Mbane would like to work more with cotton, but says the cost makes it too difficult.

Back to the Cotton SA dress. For too long, fashion has featured in headline stories for bad labour practices, conspicuous consumption, waste, and greenhouse gas emissions. Now, fashion is realising its potential for creating positive stories about saving the planet and economic development. The capacity that fashion has for powerful storytelling and for setting cultural agendas is its real beauty. With commitment and follow-through, good things will come of the sustainable trend. Not only can sustainable design practices and better manufacturing of clothes and textiles reduce the industry's negative impact on the planet and create jobs, it can inspire other industries to do the same.

Fashion can influence the way we consume cotton and encourage local manufacturing, and influence the way we live positively. We hope that this dress will inspire value addition to the cotton industry pipeline by increasing local demand of locally produced cotton textiles, which will make it more affordable and available to designers.

"Fashion can influence the way we consume cotton and encourage local manufacturing, and influence the way we live positively."



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