KATOEN COTTON SA

Volume 21 No. 2
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A Cotton SA publication for the cotton industry of Southern Africa

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- Local cotton situation
- Katoen, 'n volhoubare alternatiewe droëlandgewas
- Ratoon cotton
- Bolvorming, ontblaring en oes
- Sustainable fashion: five ways to shop smart

POST-CROP MANAGEMENT EDITION

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GEBRUIK PLANTBESKERMINGSPRODUKTE MET VEILIGHEID EN VERANTWOORDELIKE SORG.
VOLG TEN ALLE TYE AANWYSINGS OP ETIKET MET TOEDIENING VAN PLANTBESKERMINGSPRODUKTE.

Hennie Bruwer
HUB: Katoen SA
CEO: Cotton SA

KATOENSAADVOORRAAD ONDER DRUK

Oestyd is in meeste van die produksiegebiede goed op dreef, terwyl produsente ook fluks besig is om voorbereidings vir saadaankope vir die nuwe plantseisoen te tref.

Die boverwagte groei in katoenaanplantings oor die afgelope twee tot drie jaar het groot druk op saadvoorsiening geplaas. Die verwagting is dat aanplantings in die 2019/20-seisoen verder sal toeneem, wat gevolglik nóg groter druk op beskikbare katoensaadvoorraad sal plaas. Hierdie situasie is verder bemoeilik deur die samesmelting van Monsanto en Bayer, wat met ingang van Maart 2019 onder die vaandel van Bayer bedryf word.

Een van die voorwaardes vir die samesmelting was dat Bayer sy Suid-Afrikaanse katoensaadbesigheid aan 'n geskikte plaaslike derde party moet verkoop. Bayer moet egter die saadbesigheid in stand hou totdat 'n geskikte koper gevind word. Met die ter perse gaan van hierdie publikasie is nog geen geskikte koper gevind om Bayer se saadbesigheid oor te neem nie.

Hierdie situasie het die bedryf genoop om betrokke te raak in 'n poging om enige verdere druk op die saadvoorsieningsituasie vir die toekoms te help verlig. Daar sal weldra terugvoer in dié verband gegee word. Produsente word intussen versoek om hul saadbehoeftes vir die 2019/20-seisoen by hul plaaslike pluismeulenaars te plaas. Die korrekte saadaanvraag kan sodoende betyds bepaal word vir belangstellende produsente wat in die nuwe seisoen wil plant.

COTTONSEED STOCKS UNDER PRESSURE

Harvest time is well under way in most of the production areas, while producers are also hard at work to prepare for seed purchases for the new planting season.

The better-than-expected growth in hectares planted to cotton over the past two to three years has placed great pressure on seed supply. It is expected that cotton plantings will increase further in the 2019/20 season, putting even greater pressure on the available cottonseed stocks. This situation is further complicated by the merger of Monsanto and Bayer with effect from March 2019, with the business now operating under the auspices of Bayer.

One of the conditions of the merger was that Bayer is required to sell its South African cottonseed business to a suitable local third party. Bayer is required to maintain the seed business until a suitable buyer is found. At this point, a suitable buyer has not yet been found to take over Bayer's seed business.

This situation has prompted the industry to facilitate the process to help relieve any further pressure on the seed supply situation for the future, and feedback will soon be given in this regard. In the meantime, producers are urged to place their seed requirements for the 2019/20 season at their local ginners. The correct seed demand can then be determined in time for the benefit of producers who intend to plant cotton in the new season.

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OUTLOOK ON TEXTILES

by Helena Claassens, Cotton SA

POSSIBLE EFFECT OF CHANGES IN CERTAIN TRADE AGREEMENTS ON THE LOCAL COTTON TRADE

The purpose of trade agreements is to facilitate trade between countries. However, the EU and the UK talk about splitting, and China and the USA are involved in a trade "war".

How will it affect the South African cotton industry?

European Union (EU)

The EU consists of various European countries. Britain voted to leave the EU, which could have an effect on trade between countries. Less than 2% of cotton yarns and fabrics were imported from, and exported to the EU. It could be deduced that the EU is one of the smaller players in South Africa's international trade, and that Britain's exit from the EU would have little effect on South Africa's cotton industry.

China and the USA

The United States of America plans to increase tariffs on Chinese goods, and vice versa. The proposed increase in tariffs on American cotton is one of the reasons why Chinese buyers avoid the USA. Once the trade dispute ends, it is expected that China could be an aggressive buyer of USA cotton with prices rising significantly. At the same time China, while looking to India for cotton, may continue to buy cotton from countries like Brazil, which could limit any possible price advances. The cotton fibre trade between South Africa and China and between South Africa and the USA is very limited.

Conclusion

The EU is a small player in South Africa's international textile and yarn trade, and Britain's exit from the EU would have little effect on South Africa's cotton fibre and textile industry.

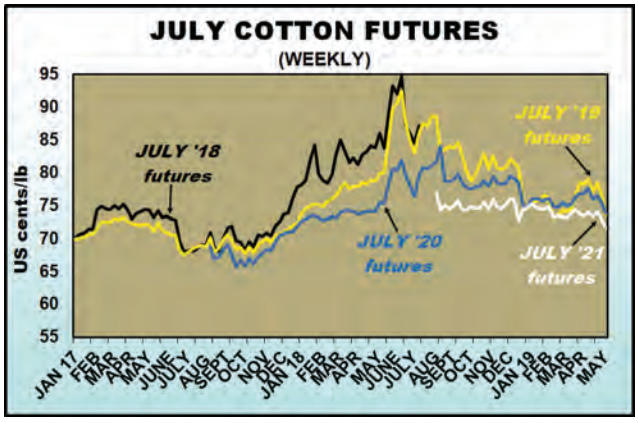
With regard to cotton fibres, trade with both China and the USA is almost non-existent and would have negligible effect on South Africa's cotton fibre industry. Imports of manufactured cotton textiles will continue to originate from China at lower-than-local prices.

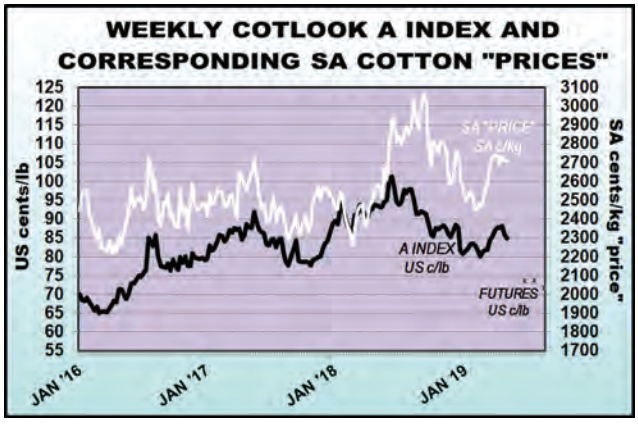
Local cotton producers could be hit the hardest if the negotiations between the USA and China lead to lower cotton prices. Even though South Africa is a small-producing country, any fluctuations in global prices would affect the local price and therefore local production.

COTTON SA MARKET REPORT

by Koot Louw, Cotton SA

The **COTLOOK A INDEX** is a daily indicator of international cotton lint prices and is the average of the cheapest five quotations (cost and freight) from a selection of the principal upland cottons traded internationally, destination: Far East.	**COTLOOK A INDEX**	**DERIVED SA "PRICE"**
	Average USA c/lb	Average SA c/kg
March 2019	83,70	2 655,64
Last week (29/04/19 to 03/05/19)	85,93	2 726,76
April 2019	87,27	2 721,97
Today (06/05/19)	**84,95**	**2 709,98**
Today a year ago	93,50	2 601,84
Today two years ago	89,10	2 653,78





GLOBAL COTTON PRODUCTION EXPECTED TO INCREASE BY 5% IN 2019/20

The planting of cotton in the northern hemisphere, which accounts for about 90% of global cotton production, is currently in full swing. The International Cotton Advisory Committee (ICAC) expects the world cotton area for 2019/20 to increase by about 3% compared to 2018/19. Global cotton production is expected to increase by about 5% to 27,5 million tonnes – the second largest crop on record. In India, the largest global cotton producer currently, cotton production is expected to increase by 5% to 6,1 million tonnes. On the other hand, cotton production in China, the world's second largest cotton-producing country, is expected to increase only by about 1%. The ICAC projects that cotton production in the USA and Pakistan, the world's third and fourth largest cotton producers, will increase by 12% and 18% in 2019/20 respectively. These four countries together account for about two-thirds of global cotton production.

The ICAC expects world cotton consumption to continue to grow steadily by about 2% in 2019/20 to a record level of 27,1 million tonnes. Cotton consumption is expected to remain stable at 8,5 million tonnes in China, the world's largest consumer of cotton. However, a 3% increase in cotton mill use is expected in both India and Pakistan, the world's second and third largest cotton-consuming countries.

The USA will remain the world's largest cotton exporter with a projected export figure of 3,3 million tonnes for 2018/19. According to the ICAC, China imported 560 000 tonnes of USA cotton during the 2017/18 season

with an expected 250 000 tonnes to be imported from the USA during the current 2018/19 season. Until the trade dispute between the USA and China is resolved, USA cotton exports to China will continue to be subject to the additional 25% tariff imposed in July 2018. Other major cotton-exporting countries have increased quantities to China, with Australia already having exported 440 000 tonnes to China so far this season, exceeding the 280 000 tonnes exported in 2017/18. Brazil has exported 380 000 tonnes to China so far this season, exceeding the 82 000 tonnes exported in the 2017/18 season. Cotton exports to China have increased from almost all other cotton-exporting countries, including India, Greece and West African countries.

World cotton ending stocks for 2019/20 are expected to remain essentially unchanged from the previous three seasons at 18,5 million tonnes. Nevertheless, world cotton stocks outside of China have steadily increased over this period, from 8,1 million tonnes in 2016/17 to an expected 10,3 million tonnes in 2019/20.

SA COTTON CROP

The fourth estimate for the 2018/19 production year indicates a cotton crop of 235 837 lint bales for South Africa, an increase of 25% over the previous season and more or less unchanged from last month's estimate. Dryland and irrigation hectares show increases of 33% and 21% respectively over the previous year, mainly due to the more favourable prices of cotton in relation to competitive crops, but also due to renewed interest in cotton production.

PRICES

The ICAC's price projection for the 2018/19 season (starting 1 August 2018), indicates a season average Cotlook A Index of between 82 USA c/lb and 93 USA c/lb. A midpoint of 87 USA c/lb (current SA "price" equivalent of about R27/kg lint) is expected.

Planting in the northern hemisphere is currently underway with favourable weather conditions overall. This, coupled with weakening demand for cotton and the fact that the USA still does not have an agreement with China, is putting pressure on cotton prices.

Cotton crop report: fourth estimate 2018/19 production year

Production region	Hectares irrigation	Hectares dryland	Yield irrigation kg seed cotton/ha	Yield dryland kg seed cotton/ha	Production 200-kg bales cotton lint	% of crop hand-picked	% of crop ginned so far
LIMPOPO							
Loskop	4 467	0	4 600	0	36 987	0%	0%
North and South Flats	1 236	11 875	3 200	700	22 082	0%	0%
Koedoeskop, Dwaalboom, Thabazimbi	7 562	0	5 200	0	72 746	0%	0%
Limpopo other	385	142	3 500	400	2 528	0%	0%
Weipe	1 100	0	3 500	0	7 123	0%	0%
NORTHERN CAPE							
Vaalharts	2 333	0	4 580	0	19 768	0%	0%
Lower Orange River	364	0	4 000	0	2 694	0%	0%
Rest of Northern Cape	4 065	0	4 858	0	38 313	0%	0%
NORTH WEST							
Stella, Delareyville, Schweizer-Reneke, etc.	628	3 178	4 349	2 139	17 627	0%	0%
Taung, Skuinsdrif	388	0	4 489	0	3 222	0%	0%
KWAZULU-NATAL	736	1 989	4 075	800	8 493	18%	0%
MPUMALANGA	10	1 080	0	750	1 563	100%	0%
FREE STATE	50	800	3 500	1 600	2 692	0%	0%
RSA TOTAL	**23 324**	**19 064**	**4 696**	**989**	**235 837**	**1%**	**0%**
Swaziland*	250	1 500	4 000	750	3 825	100%	0%
Botswana*	0	0	0	0	0		
Namibia*	50	0	0	0	370		0%
Zimbabwe*	0	0	0	0	0		
Mozambique*	0	0	0	0	0		
GRAND TOTAL	**23 624**	**20 564**	**4 688**	**971**	**240 032**	**3%**	**0%**

* Particulars relate to expected purchases of seed cotton by South African and Swaziland ginners from these countries.

LOCAL COTTON SITUATION – 2018/19 MARKETING SEASON

by Koot Louw, Cotton SA

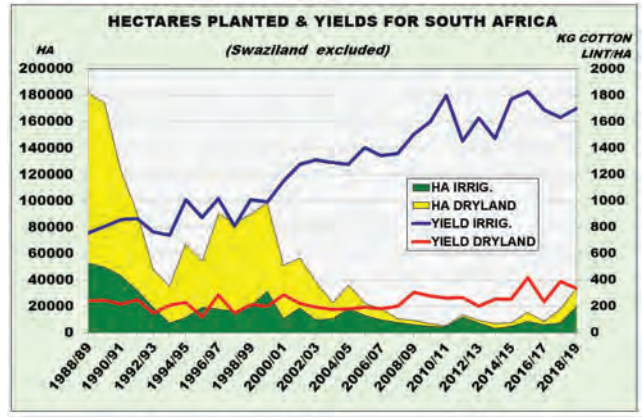
Production

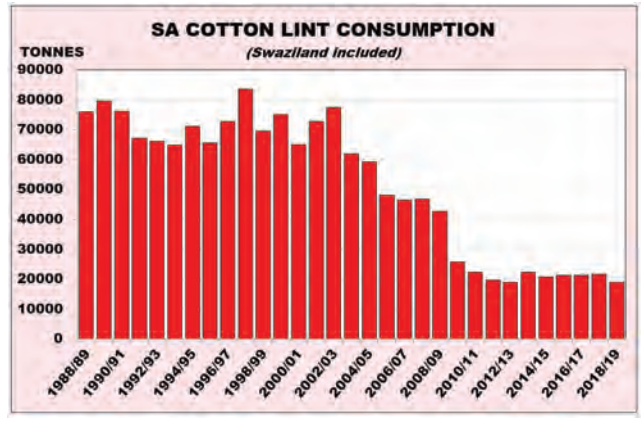
According to the statutory returns submitted by South African cotton ginners, production of cotton lint totalled 31 693 tonnes for the 2018/19 marketing year (1 April 2018 to 31 March 2019), which represents a 98% increase over the previous season. This is mainly due to increased hectarage, which is a result of the more favourable prices of cotton in relation to competitive crops, as well as the renewed interest in cotton production.

On 31 March 2019 local cotton ginners still had 14 378 tonnes of seed cotton and 2 856 tonnes of cotton lint in stock.

Consumption

The total lint consumption by the local cotton spinning mills for the 2018/19 marketing year totalled 18 958 tonnes, representing a 12% decrease compared to the previous season. This decrease in cotton mill use can mainly be ascribed to the closing down of the Swaziland cotton spinner in the 2017/18 marketing year. Another factor is that most of its cotton spinning business was not taken up by the remaining four cotton spinning mills.



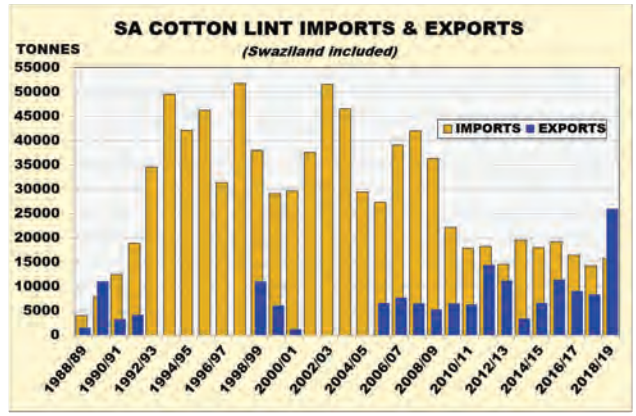


Following the closing down of South Africa's largest cotton spinner in 2009, local cotton mill use declined significantly to stabilise between 19 000 and 22 000 tonnes for a number of years. This can be seen on the cotton lint consumption graph. The overall decrease in local cotton consumption in recent years is mainly due to the continued imports of low-priced textiles and apparel from Asia, which impacts negatively on local demand as well as on textile and clothing exports.

Trade

Local cotton spinning mills imported 84% of their cotton requirements during the 2018/19 marketing season, 65% of which originated from Zambia. The two other main suppliers in 2018/19 were Zimbabwe and India, respectively accounting for 28% and 5% of spinners' cotton lint imports. Total cotton lint imports amounted to 15 856 tonnes. As a rule, more than 90% of all cotton imports originate from countries within the Southern African Development Community (SADC) as there is no import duty applicable on cotton lint imports from these countries in terms of a free-trade agreement.

During the 2018/19 marketing season, a record 26 039 tonnes of locally produced cotton lint was exported.



NUUS / NEWS

COTTON SA'S COTTON SKILLS TRAINING PROGRAMME

Fifty smallholder cotton farmers from Mpumalanga who enrolled for Cotton SA's Cotton Skills Training programme in the 2017/18 marketing year, recently received certificates during a certification ceremony hosted by the Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs.

Cotton SA's smallholder farmer training programme, now in its 18th year, remains one of its core transformation initiatives. Cotton SA NPC is an AgriSeta accredited training institution and in total 1 171 smallholder farmers have so far attended these training courses.

Cotton farmers who attended the certification ceremony to receive their certificates.

WÊRELDKATOENSUBSIDIES

Die International Cotton Advisory Committee (ICAC) berig dat subsidies wat deur regerings beskikbaar gestel word om hul katoensektore te ondersteun, toegeneem het gedurende 2017/18. Hierdie subsidies sluit direkte produksie-ondersteuning, grensbeskerming, oesversekeringsubsidies en minimumprysondersteuningmeganismes in. Tydens hierdie periode het die totale subsidies sowat $5,9 miljard beloop, wat 'n toename van 33% teenoor die $4,4 miljard van 2016/17 verteenwoordig.

Tien lande het subsidies in 2017/18 verskaf wat gemiddeld 18 VSA c/lb beloop het. Die vier lande wat die grootste bystand aan hul katoensektore in 2017/18 verleen het, was:

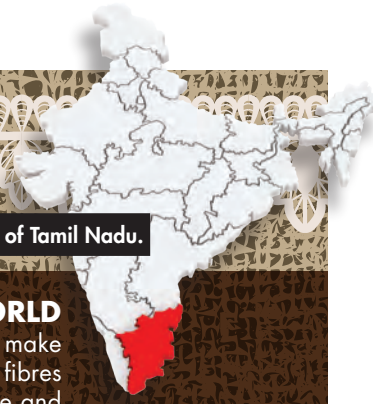
- China ($4,25 miljard);
- die VSA ($886 miljoen);
- Turkye ($398 miljoen); en
- Griekeland ($225 miljoen).

Gesamentlik is hulle verantwoordelik vir 97% van die globale regerings-ondersteuning.

THE MARKET FOR DENIM

Denim is one of the most traditional cotton fabrics but in recent years the demand for denim has been facing new challenges and pressures. The use of athletic apparel for activities other than exercise is rapidly increasing and consumers, especially women, are seeking casual and versatile athletic clothing that can be worn throughout the day for several activities, including work. As both manufacturers and buyers look for denim with a friendlier environmental footprint, the denim industry will be forced to become more innovative and advanced.

According to the ICAC, China remains the largest exporter of denim in the world, accounting for approximately 45% of total denim fabric exports. The global market share of denim in cotton fabric exports by volume has ranged from 18% to 20% over the past five years. More than 1,2 billion pairs of denim jeans are sold around the world every year.



The southern Indian state of Tamil Nadu.

RAREST, MOST LUXURIOUS COTTONS IN THE WORLD

Luxury-grade yarns spun from extra-long staple (ELS) cotton make extraordinarily fine cottons. The name ELS cotton is given to cotton fibres of extraordinary length, superior strength and uniformity, high lustre and unrivalled softness. These characteristics create the most luxurious fabrics. ELS cottons such as Sea Island, Indian Suvin, and Egyptian Giza 45 are considered the most luxurious, making them highly prized and the most expensive of all cottons. These varieties are hand-picked and are very scarce.

Sea Island, the original ELS variety, is grown in the Caribbean Islands. It is the rarest type of cotton, and said to make up less than 0,0004% (100 tonnes) of global production and is more than 10 times as expensive as other cottons.

Suvin is the jewel in the Indian cotton crown. Suvin is a hybrid of Sea Island cotton from St Vincent in the Caribbean, and an Indian variety called Sujatha. Often called "White Gold", only a few thousand bales of this superfine cotton are grown each year in the southern Indian state of Tamil Nadu.

Giza 45 is the most highly prized of all the Egyptian cottons. It is cultivated in a small area of the Nile Delta, where sun, rain, humidity and fertile soil create perfect growing conditions for the annual production of less than 300 tonnes. Harvested by hand, it is five times as expensive as other Egyptian cottons.

BCI Better Cotton Initiative

RECORD LEVEL OF BETTER COTTON UPTAKE

In 2018, the Better Cotton Initiative (BCI) experienced a historic level of uptake as 93 retailers and brand members sourced more than one million metric tonnes of Better Cotton – that is enough cotton to make approximately 1,5 billion pairs of jeans. Better Cotton uptake increased 45% from 2017, and at the end of 2018, retailers' and brand members' sourcing of Better Cotton accounted for 4% of global cotton consumption. By integrating Better Cotton into their sustainable sourcing strategies and increasing sourcing commitments year-on-year, BCI's retailer and brand members are driving demand for more sustainable cotton production worldwide.

Katoen SA se **KATOENKLEINBOERFORUM**

Die Katoenkleinboerforum, wat funksioneer as 'n komitee van Katoen SA en wat reeds onder die ou Katoenraad tot stand gekom het, het onlangs sy 74ste vergadering gehou.

Twee van die hoofdoelwitte van Katoen SA met betrekking tot kleinkatoenboerontwikkeling is om die deelname van kleinboere te verbreed. Dit stel hulle in staat om hulle aandeel in die Suid-Afrikaanse katoenoes te laat toeneem, en ook om kleinboere se produktiwiteit te verhoog deur opleiding. Die hooffunksie van die forum is om:

- 'n koördinerende rol te vervul;
- vordering met betrekking tot die gestelde doelwitte te monitor; en
- 'n omgewing te skep waar positiewe interaksie tussen rolspelers tot verhoogde marktoegang vir klein katoenboere kan lei.

Rolspelers wat die afgelope Katoenkleinboerforum-vergadering bygewoon het.

PEET VAN NIEUWENHUIZEN TREE AF

Oom Peet se betrokkenheid in die katoenbedryf strek oor 'n periode van 44 jaar. In 1975 was hy vir die eerste keer betrokke by die ontvangs en pluis van katoen in Marble Hall. In dieselfde jaar het hy katoensaadproduksie begin doen, hom as saadinspekteur bekwaam en later opleiding in dié verband gegee. Oom Peet was gedurende die sewentigs ook betrokke by katoenteling by die Oudestad Proefplaas, sowel as by die aanplant van katoenproewe, en het in dié tyd katoenvoorligtingsdienste aan boere gelewer.

In die tagtigerjare het hy begin met katoengradering en later by die Loskop Pluismeule as voltydse gradeerder aangesluit. Hier het hy voorligting oor alle aspekte van katoenproduksie aan boere verskaf.

Hy word bedank vir sy diens aan die Suid-Afrikaanse katoenbedryf en word 'n welverdiende en voorspoedige aftrede toegewens.

Oom Peet van Nieuwenhuizen.

Ons is daar van plant, tot stoor, tot in die mark.

GWK Katoen

As jy na die beste oplossings vir jou katoenboerdery soek, vertrou ons span by GWK Katoen. Of jy al jare katoen aanplant of dit vir die eerste keer oorweeg, het ons spesialiste wat elke jou in elke stap kan ondersteun. Met gevestigde internasionale markkanale verseker ons dat jou produk in die regte hande beland.

Fanus Linde | Bestuurder | 082 888 0016 | fanusl@gwk.co.za

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GWK

innoveer landbou

Sterkfonteindam.

DAMME EN KLIMAATS-VOORUITSIGTE

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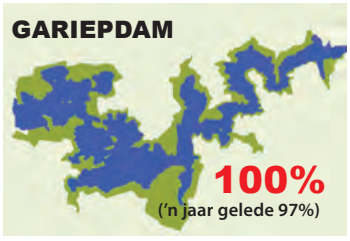
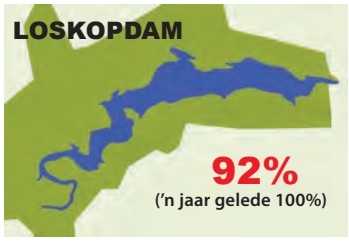
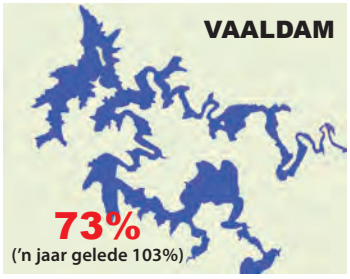
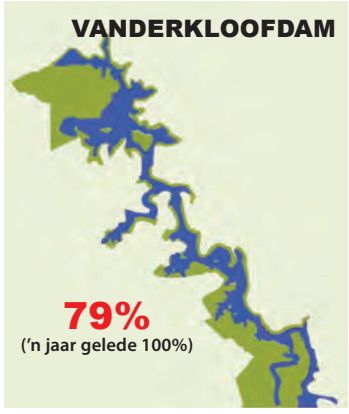
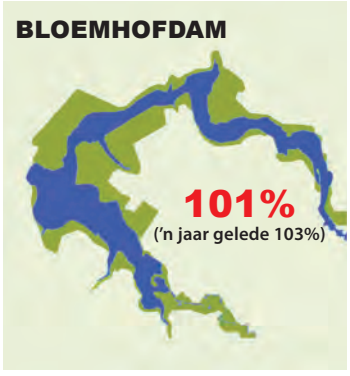
DAMMESTAND SOOS OP 13 MEI 2019











KLIMAATSVOORUITSIGTE VIR MEI TOT SEPTEMBER 2019

Die El Niño-Suidelike Ossillasie (ENSO) het in 'n matige El Niño-staat gebly en aanduidings is dat dit regdeur die winter en lente sal versterk. Daar word egter nie verwag dat dit Suid-Afrika in die huidige en komende seisoene sal beïnvloed nie, aangesien ENSO 'n beperkte effek in Suid-Afrika gedurende die herfs en winter het.

Voorspellings vir vroeë en midwinter (Mei tot Julie; Junie tot Augustus) is optimisties vir bonormale reënvaltoestande oor die suidwestelike dele van die land. 'n Toename in die aantal reënvaldae van ongeveer 5 mm word ook verwag tydens vroeë winter. Dit is belangrik om daarop te let dat reënval gewoonlik gedurende die winter oor die hele land afneem, behalwe in die Suidwes-Kaap. Daarom word geen noemenswaardige reënval gedurende die voorspelde tydperk vir die sentrale en noordoostelike dele van die land verwag nie.

Wat temperature betref, word daar oor die algemeen hoër as normale temperature vir die meeste dele van die land verwag; behalwe vir die middel van die winter wanneer laer as normale maksimum temperature vir die suidwestelike helfte van die land verwag word.

Katoen, 'n volhoubare alternatiewe droëlandgewas

deur dr. Koos Coetzee, 'n onafhanklike landbou-ekonoom

Droëlandkatoen met 'n opbrengs van vier ton/ha, 2008 – Willem van der Walt.

Katoen kan winsgewend in die somersaaigebiede in kombinasie met ander somergewasse verbou word.

KATOENPRODUKSIE NEEM TOE

Boere plant al hoe meer katoen. In die 2018/19 produksiejaar is daar 19 362 ha droëlandkatoen geplant, meer as dubbel die oppervlakte wat in 2005/06 geplant is. Die hoofrede vir die toename is groter winsgewendheid vergeleke met ander somergewasse. Drie faktore bepaal die winsgewendheid van 'n akkerbouvertakking, naamlik die opbrengs, die prys wat realiseer en die koste om die produk te produseer en te bemark. Indien droëlandmielies, -sojabone en -katoen op dié basis vergelyk word, dan blyk dit voordelig vir saaiboere te wees om katoen deel van hul somergraanpakket te maak.

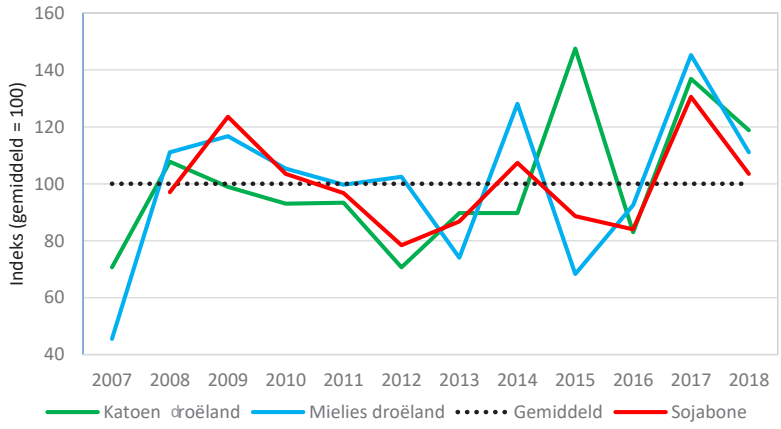
OPBRENGS PER HEKTAAR

Die gemiddelde nasionale opbrengs van katoen, mielies en sojabone onder droëlandtoestande word in Figuur 1 op 'n indeksbasis vergelyk. Hoewel opbrengste van jaar tot jaar wissel, is daar 'n redelike korrelasie tussen katoen-, mielie- en sojaboonopbrengste. Mielie- en katoenopbrengste het verbeter oor tyd. Vir die vyfjaarperiode van 2006/07 tot 2010/11 was die ongeweegde gemiddelde opbrengs van katoen 710 kg/ha. Dit styg tot 882 kg/ha vir die vyfjaarperiode vanaf 2014/15; 'n styging van 24%. Dieselfde tendens is tot 'n mindere mate by mielieopbrengste sigbaar, waar die gemiddelde produksie styg met 14%. Sojaboonopbrengste styg slegs marginaal. Oor die periode vanaf 2006/07 tot 2017/18 was die geweegde gemiddelde droëlandopbrengs van katoen 878 kg/ha, van mielies 4,1 ton/ha en van sojabone 1,7 ton/ha. Vir die 2018/19 seisoen word 'n opbrengs van 920 kg/ha vir droëlandkatoen, 4,6 ton/ha vir mielies, (insluitend besproeiingsmielies), en 1,7 ton/ha vir sojabone voorspel.

PRODUSENTEPRYSE

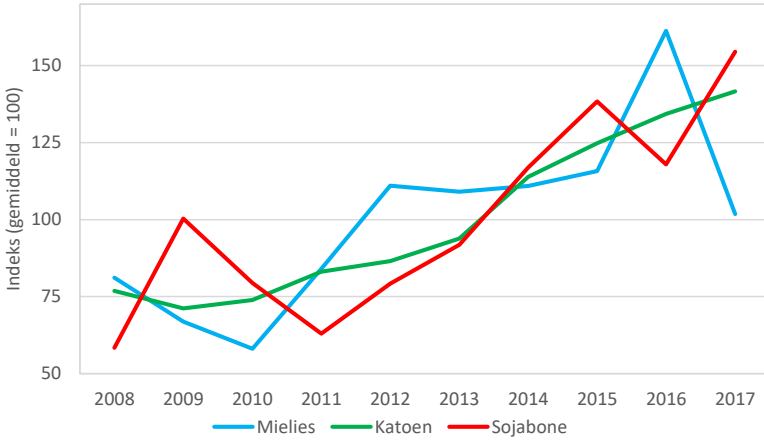
Produsentepryse varieer op 'n dag-tot-dag basis. Gemiddelde pryse word in Figuur 2 op 'n indeksbasis vergelyk. Katoenpryse is meer stabiel as mielie- en sojapryse. Mielieprys varieer tussen invoer- en uitvoerpariteit, afhangende van die grootte van die plaaslike oes, terwyl katoenpryse grootliks gebaseer is op internasionale katoenveselpryse en plaaslike katoensaadpryse. Katoensaad is 'n belangrike bestanddeel van herkouervoeding en 'n gesogte voer vir melkkuddes. Die prys van katoensaad vir veevoer varieer in 2018 tussen R4 172 en R3 722 per ton, bykans gelyk aan die sojaboonprys.

Figuur 1: Droëlandkatoen-, mielie- en sojaboonopbrengste vergeleke met langtermyngemiddeld, 2006–2018.



Bron: Graan SA; Katoen SA

Figuur 2: Jaarlikse gemiddelde katoenpluksel-, mielie- en sojaboonpryse, 2008–2017.



Bron: Graan SA; Katoen SA: SAGIS

Tabel 1: Inkomste- en kosteraming vir droëlandkatoen, -mielies en -sojabone, 2018/19.

Inkomste- en kosteraming: Droëlandmielies teen verskillende opbrengspeile

Beplanningsopbrengs (ton/ha)	3,5	4	4,5	5
Totale koste per hektaar voor bemarking	9 333	9 759	10 185	10 611
Bemarkingskoste (R/ha)	980	1 120	1 260	1 400
Totale koste (R/ha)	10 313	10 879	11 445	12 011
Totale koste (R/ton)	2 947	2 720	2 543	2 402
Safex Julie 2019-prys (Maart 2019)	2 702	2 702	2 702	2 702
Verwagte wins/verlies (R/ton)	-245	-18	159	300
Verwagte wins/verlies (R/ha)	**-856**	**-71**	**714**	**1 499**

Inkomste- en kosteraming: Droëlandkatoen teen verskillende opbrengspeile

Beplanningsopbrengs (kg pluksel/ha)	1 000	1 500	1 750	2 000
Totale koste per hektaar voor bemarking	9 356	10 324	10 790	11 399
Bemarkingskoste (R/ha)	70	105	123	140
Totale koste (R/ha)	9 426	10 429	10 913	11 539
Totale koste (R/kg)	9,43	6,95	6,24	5,77
Verwagte prys 2019	9,00	9,00	9,00	9,00
Verwagte wins/verlies (R/kg)	-0,43	2,05	2,76	3,23
Verwagte wins/verlies (R/ha)	**-430**	**3 075**	**4 830**	**6 460**

Inkomste- en kosteraming: Droëlandsojabone teen verskillende opbrengspeile

Beplanningsopbrengs (ton/ha)	1	1,25	1,5	2
Totale koste per hektaar voor bemarking	7 548	7 847	8 145	8 731
Bemarkingskoste (R/ha)	63	79	95	126
Totale koste (R/ha)	7 611	7 925	8 240	8 857
Totale koste (R/ton)	7 611	6 340	5 493	4 429
Safex Julie 2019 prys/ton (Maart 2019)	4 925	4 925	4 925	4 925
Verwagte wins/verlies (R/ton)	-2 686	-1 415	-568	496
Verwagte wins/verlies (R/ha)	**-2 686**	**-1 769**	**-852**	**993**

Bron: Graan SA; Katoen SA; GWK Kostegids 2018

BRUTO INKOMSTE

Die bruto inkomste is die produk van die opbrengs en die prys waarteen dit bemark word. Gebaseer op die verwagte 2018/19 oes en huidige prysverwagtinge is die bruto inkomste per hektaar vir mielies, sojabone en katoen gelyk aan R12 429, R8 373 en R8 280 per hektaar, onderskeidelik. Indien bruto inkomste vir die Noordwes-provinsie (ook gebaseer op die 2018/19 oesskatting) vergelyk word, dan verander die bruto inkomste na R9 070, R6 402 en R15 746 vir die drie gewasse respektiewelik.

INKOMSTE- EN KOSTERAMINGS

Inkomste- en kosteramings vir droëlandkatoen, -sojabone en -mielies word in Tabel 1 aangedui. Die produksiekoste per hektaar vir mielies en katoen verskil nie veel nie. Sojabone se produksiekoste is wel laer. Nie een van die drie gewasse is winsgewend teen 'n laer opbrengs nie. Teen hoër opbrengste is katoen baie meer winsgewend. Omdat die inkomste- en kosteramings vanuit verskillende bronne saamgestel is, moet die syfers versigtig hanteer word en produsente behoort dit met hul eie syfers te kontroleer. Vir al drie gewasse is dit nie volhoubaar om laepotensiaalgrond te gebruik nie.

Die produksiekoste van katoen is vergelykbaar met dié van mielies en dus is die effek van 'n misoes of 'n swakker oes dieselfde. Sojabone kan net oorweeg word indien 'n baie hoë opbrengs verkry word, soos dit uit die kosteramings blyk.

SAMEVATTING

Droëlandgewasproduksie is riskant. Hoë produksiekoste veroorsaak dat 'n misoes finansieel rampspoedig vir boere kan wees. Moderne vogbewaringsbewerkingspraktyke stel boere egter in staat om selfs in "moeilike" jare bogemiddelde opbrengste te behaal. Katoenprodusente sal onder swak toestande ongeveer dieselfde verlies per hektaar as mielieprodusente ly. Die voordeel van katoenproduksie bo die ander somergewasse word egter teen hoër opbrengste verkry. Teen 'n opbrengs van 5 ton/ha kan 'n mielieprodusent 'n inkomste van R1 500/ha teen huidige Safex-pryse verwag, terwyl 'n katoenprodusent teen 'n opbrengs van 2 ton/ha 'n inkomste van R6 400/ha kan verwag.

Hoewel die syfers aandui dat katoen meer winsgewend as mielies en sojabone verbou kan word, beteken dit nie dat mielieprodusente nou halsoorkop na katoenproduksie moet oorskakel nie. 'n Klomp faktore moet oorweeg word voordat so 'n besluit geneem kan word. Die volgende ekonomiese aspekte moet in ag geneem word:

- Verwagte produksiepryse
- Die beskikbaarheid en koste van katoen-oesmasjinerie
- Bemarkingskoste
- Die skoolgeld in terme van opbrengste wat onafwendbaar is
- Gewasspesifieke faktore soos die kwesbaarheid van katoenplante vir droogte in die opkomsfase
- Wisselbouvereistes
- Die beskikbaarheid van opvolggewasse

Vir die boere wat daarin slaag om hoë opbrengste te verkry onder droëlandtoestande, soos die verwagte 1 750 kg/ha wat in die Stella-, Delareyville- en Schweizer-Reneke-gebiede verwag word, verskaf katoen 'n goeie alternatief vir mielies en sojabone.

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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

- Werksdiepte van 7 - 20 cm, hidrolies aangepas
- Simetriese skottelrangskikking om sywaardse beweging tee te werk
- Meng organiese materiaal eweredig in die grond vir vinnige organiese materiaalontbinding

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The Agrovision Company

DIE VROEË GESKIEDENIS van katoenproduksie in Suid-Afrika

deur Koot Louw, Katoen SA

Tussen 1860 en 1870 is katoen op relatiewe groot skaal in beide Natal en die Kaapkolonie aangeplant. Die doel was om in die wêreldvraag na katoen te voorsien, wat ontstaan het as gevolg van die Amerikaanse burgeroorlog. Daarna het dit feitlik tot stilstand gekom en eers weer in 1904 posgevat. Sowat 12 tot 14 hektaar is in 1904 in die Tzaneen-omgewing aangeplant en die eerste pluismeule is in 1905 in hierdie gebied opgerig.

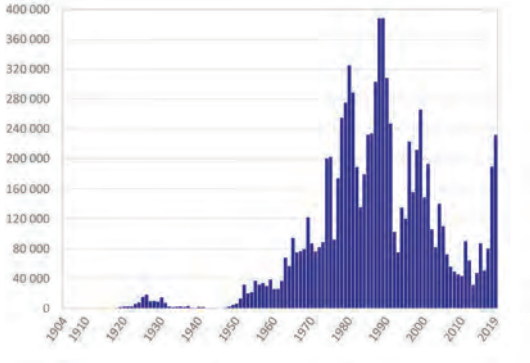
Tussen 1913 en 1922 is katoen hoofsaaklik in die Transvaalse Laeveld en in die Oos-Transvaal verbou. In 1922 is 'n tweede pluismeule in Barberton opgerig, in 1924 nog twee by Umbogintwini en Magut in Natal, en 'n verdere een in 1935 by Louis Trichardt deur die Lancashire Cotton Corporation Spinners van die Verenigde Koninkryk. In hierdie stadium was daar nog geen spin- of weeffasiliteite in Suid-Afrika nie en al die katoenvesel is na Liverpool uitgevoer. Om hierdie program te administreer, is 'n katoengradeerder aangestel om toesig te hou oor die kwaliteit en die uitvoer van die katoenvesel.

Katoen is die eerste keer in 1927 onder besproeiing in die Benede-Oranje-riviergebied verbou, maar ná 1930 het katoenproduksie in Suid-Afrika afgeneem as gevolg van die Groot Depressie. Dit het eers weer momentum ná die einde van die Tweede Wêreldoorlog gekry, toe die Ralli Brothers van Londen die moontlikheid van winsgewende katoenverbouing in Suid-Afrika raakgesien het. In 1948 koop hulle die pluismeule by Magut sowel as twee plase in hierdie gebied en rig 'n verdere pluismeule op. Terselfdertyd bring hulle Bergrivier Textiles in die Paarl tot stand, waar katoen vir die eerste keer plaaslik gespin en geweef word.

In 1949 het die Du Four-broers ook 'n spin- en weeffabriek by Standerton opgerig wat vandag nog in bedryf is. Die grootste hupstoot vir die plaaslike katoenbedryf in hierdie tyd was egter die oprigting in 1952 van die eerste behoorlike tekstielfabriek in Ladysmith, Natal, deur Philip Frame in vennootskap met die Consolidated Lancashire Cotton Corporation.

Al hierdie gebeure het die fondament gelê en die stimulus voorsien vir die ontwikkeling van die Suid-Afrikaanse katoenproduksiesektor soos gesien kan word in die meegaande figuur.

Figuur: Katoenveselproduksie in Suid-Afrika sedert 1904 (200 kg-bale).



BOLVORMING, ONTBLARING EN OES

deur dr. Annette Bennett, Katoen SA

Katoenbolvorming en -ontwikkeling geskied vandat die eerste wit blomme verskyn het totdat die eerste bolle bars, tydens die periode vanaf dag 103 tot 140 (14 tot 20 weke) na plant (Chaudhry & Guitchounts, 2003). Bolle neem ongeveer 20 tot 25 dae (drie weke) om 'n goedgevormde bol te vorm. 'n Bestuifde katoenblom (wit blom) neem ongeveer 50 dae om 'n volledige oop katoenbol met ryp vesel te vorm.

Die bolontwikkelingsperiode neem toe namate temperature daal, met nagtemperature wat belangriker is as dagtemperature. Die grootte, vorm en gladheid van die bol verskil tussen variëteite en bolle van *Gossypium hirsutum* weeg ongeveer 3 tot 10 g per bol, maar meer dikwels tussen 3 en 6 g per bol (Oosterhuis *et al.*, 1994). Tans maak die saad ongeveer 52% van die gewig uit; die oorblywende gedeelte is die vesel. Die finale droëbolgewig bestaan uit 75% tot 80% saadkatoen, terwyl die saadkapsule (katoenbolhuisie sonder saad en vesel) ("burs") die res van die gewig uitmaak. Opsommend dus:

- saad = 52%
- vesel = 37%
- donskatoen = 2% tot 3%
- verlies = 6% tot 8%

Bolgrootte en -ontwikkeling word bepaal deur die unieke genetiese materiaal van elke variëteit asook deur omgewingstoestande soos temperatuur, sonligintensiteit, water en beskikbare voedingstowwe (Oosterhuis *et al.*, 1994). Gemiddelde temperature produseer groter bolle. Bolle kan wissel van rond

Hennie Bruwer en Jozeph du Plessis in droëlandkatoen in die bolvormingsfase op Schweizer-Reneke, Maart 2019.

tot ovaalvormig, verleng en gepunt. Klein eerstedragbolle (naaste aan die hoofstam) onderaan die plant begin vorm tydens die tweede week van blom.

Halfgebarste katoen ("hard-lock cotton") kom voor as die katoenbolhuisie se lokusse ("locules") nie heeltemal oopmaak om die vesel te laat uitstulp of pof nie. Dit is nog onduidelik in hoe 'n mate "hard-lock" katoen geassosieer word met *Fusarium* spp. infeksie, al dan nie. Dit kom voor in koue toestande met te veel vog, in uiters droë kondisies of as gevolg van insekskade. Dié vesel is dikwels onryp en onvolwasse. Die meeste bolle vorm in die tweede en derde week ná aanvangs van blomvorming, en kan tot tussen 65% en 70% van alle bolle beslaan. Dit is die kritieke periode om die eerstedragbolle te bestuur en plantstres soos biotiese stres of plaagstres te beperk.

Die aantal bolle per plant is 'n funksie van plantspasiëring en die aantal plante per hektaar. As minder plante per hektaar voorkom, kompenseer die plant deur langer vrugtakke te produseer wat meer bolle dra. Vir masjienpluk kan dit 'n probleem wees, aangesien 'n meer kompakte plant verlang word wat regop groei met bolle nader aan die hoofstam gerangskik. Met hoë plantpopulasiedigtheid groei plante meer regop en hoër, en die plantestand kompenseer vir die verlies van bolle op die vrugtakke wat nie so welig kante toe groei nie en minder vrugte dra. Sulke plantdigthede kan digte plantdakke veroorsaak, met minder sonlig wat die onderste

> "Gemiddelde temperature produseer groter bolle. Bolle kan wissel van rond tot ovaalvormig, verleng en gepunt."

Figuur 1: Halfgebarste katoen ("hard-lock cotton") kom voor as die katoenbolhuise se lokusse nie heeltemal oopmaak om die vesel te laat uitstulp of uitpof nie (wcrc.confex.com).

dele van die plant penetreer. Hierdie plante kan soms bolvrot vertoon, wat ook 'n funksie is van 'n té klam omgewing in kombinasie met of sonder plantsiektes. Plantpopulasies van 100 000 plante, met 'n gemiddeld van 20 bolle per plant, met elke bol wat 3,5 g weeg, gee 'n katoenplukselopbrengs van 7 ton/ha. 'n Plantestand van 66 000 plante per ha, met 15 bolle van 3,5 g elk, behoort ongeveer 3,5 ton/ha te lewer (sien Tabel 1).

Gedurende die bolvormingsperiode word vesellengte en die tempo van die neerlegging van sellulose in die verdikking van die sekondêre veselwand bepaal. Temperatuur beïnvloed hoofsaaklik die vesellengte in die eerste 15 tot 21 dae van bolvorming, terwyl die sterkte van die vesel na 21 dae bepaal word. Bolle moet dus verkieslik nie geoes word binne 21 dae nadat bolbars begin het nie.

Wanneer moet ontblaring begin?

Ontblaring kan tussen 124 en 130 dae na plant begin. Tot op hede is daar vier middels vir ontblaringsdoeleindes geregistreer:

- Ginstar® 540 EC: 150 tot 250 ml/ha;
- Ginstop® 540SC: 150 tot 200 ml/liter in 2 tot 3 liter water per hektaar;
- Stripteaze®: 450 tot 750 ml/ha; en
- Drop Ultra®: 400 tot 700 ml/ha. Sien ook byvoegingsmiddels (olies) op die etiket (hierdie middel word dikwels nie meer gelys nie).

Tabel 1: Gemiddelde aantal bolle (3,5 g elk) in vergelyking met plantestand en katoenplukselopbrengs (ton/ha) (benaderd).

Aantal plante per ha	Totale aantal bolle per ha (gemiddeld 25 bolle per plant)	Totale bolgewig/ha (g) (ongeveer 3,5 g/bol)	Aantal kg/ha	Saadkatoen-opbrengs (ton)
33 333	833 325	2 916 638	2 916,6	2,9
66 666	1 666 650	5 833 275	5 833,3	5,8
100 000	2 500 000	8 750 000	8 750,0	8,8
125 000	3 125 000	10 937 500	10 937,5	10,9
Aantal plante per ha	**Totale aantal bolle per ha (gemiddeld 20 bolle per plant)**	**Totale bolgewig/ha (g) (ongeveer 3,5 g/bol)**	**Aantal kg/ha**	**Saadkatoen-opbrengs (ton)**
33 333	666 660	2 333 310	2 333,31	2,3
66 666	1 333 320	4 666 620	4 666,62	4,7
100 000	2 000 000	7 000 000	7 000	7,0
125 000	2 500 000	8 750 000	8 750	8,8
Aantal plante per ha	**Totale aantal bolle per ha (gemiddeld 15 bolle per plant)**	**Totale bolgewig/ha (g) (ongeveer 3,5 g/bol)**	**Aantal kg/ha**	**Saadkatoen-opbrengs (ton)**
33 333	499 995	1 749 983	1 749,98	1,7
66 666	999 990	3 499 965	3 499,97	3,5
100 000	1 500 000	5 250 000	5 250	5,3
125 000	1 875 000	6 562 500	6 562,5	6,6

Daarmee saam word Ethephon 480 SL 100 ml/100 liter water vir 'n tenkmengsel van 2 tot 3 liter water per hektaar dikwels gespuit wat help dat bolle bars. Ontblaring moet geskied sodra die katoenplant optimum oespotensiaal bereik het. In Australië word 'n veldinspeksie van bolle aanbeveel om seker te maak dat die laaste plukbare bolle volwassenheid bereik het. Kyk na dagtemperature as aanduiding vir 'n tyd van versigtige ontblaringstoedienings, gewoonlik in die middel van die oggend, om die varsheid van die gewas te maksimaliseer. Dit sal die opneembaarheid van die ontblaringsmiddels fasiliteer en vergemaklik. Soos wat temperature onder 18 °C begin daal, sal die ontblaringseffektiwiteit begin verlaag en behoort die toedieningstempo dienooreenkomstig aangepas te word.

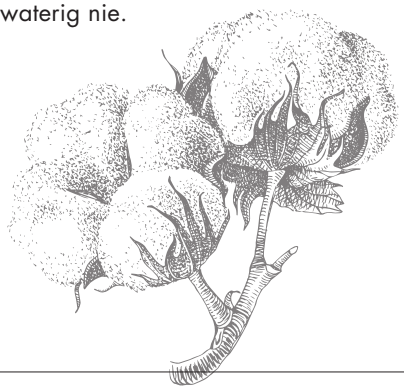
Hoe bepaal ons die aantal dae tot ontblaring?

Die volgende metode word deur die Cotton Seed Distributors Ltd in Australië aanbeveel:

- Ontblaar wanneer daar vier nodes bo die gebarste bolle is (NBGB) ("nodes above cracked boll – NACB").
- Neem in ag dat elke nuwe bol wat moet oopgaan op 'n vrugtak, drie tot vier dae neem om oop te gaan (42 daggrade). Dit verwys nie na temperatuur nie, maar na ure van daglig of sonskyn. Dit word met 'n formule bereken ("day degrees").
- Die dae tot ontblaring word bereken as: (totale NBGB – 4) x 3 (of 4).
  (Mik na 'n maksimum van vier nodes, wat 'n 0-dag gee vir wagperiode).

Drie maniere om gewas-volwassenheid te bepaal

1. Boluitsnyding is die maklikste en mees effektiewe metode om te bepaal of bolle ryp is. Bolle is ryp wanneer:
   - hulle baie moeilik raak om met 'n mes te sny;
   - die saad goed ontwikkel en nie-gelvormig is; en
   - die saadhuid bruin geword het met draadagtige vesel – nat, maar nie waterig nie.



2. In meeste situasies is die NBGB = 4, die tyd wanneer 60% van die bolle reeds gebars het. Dit is 'n goeie maatstaf wanneer die katoen eenvormig gegroei het en is minder tydrowend as om die persentasie bolle te bereken, wat dikwels nie akkuraat is nie.
3. Katoen kan veilig ontblaar word as 60% tot 65% van die bolle oop is, gewoonlik ongeveer vanaf dag 140 na plant. Dié metode werk goed in katoen wat 'n eenvormige verspreiding van bolle het. Hou ontblaringsbespuitings op die teiken, minimaliseer oorwaai op ander areas en volg etiketinstruksies sorgvuldig.

Verwysings

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2. Chaudhry, M.R. & Guitchounts, A. 2003. Agronomy and Physiology. *Cotton Facts*, Technical Paper no. 25 of the Common Fund for Commodities p. 35-44. Published by the International Cotton Advisory Committee, ISBN 0-9704918-3-2.

THE COTTONHAND APP

We are very excited to announce the release of our mobile phone application for cotton farmers. Although the application is built and optimised for use by smallholder farmers, every cotton farmer can benefit by using the application. The following aspects are addressed:

- Cotton-grading standard
- Land, seedbed and planting
- Financial planning
- Pesticide use
- Harvesting guide
- Scouting procedure
- Irrigation for commercial cotton

Tools include the following:

- Disease identification
- Weed identification
- Harmful insect identification
- Beneficial insects – predators
- Budget tool
- Plant population
- Cotton yield estimate
- Scout recording sheet

The application has been developed to run on Android and Apple IOS in an offline environment and is free to use.

Please send an email to **cotton@cottonsa.org.za** if you would like access to the application.

More information available at **www.thecottonhand.com**

RATOON COTTON

by Dr Annette Bennett, Cotton SA

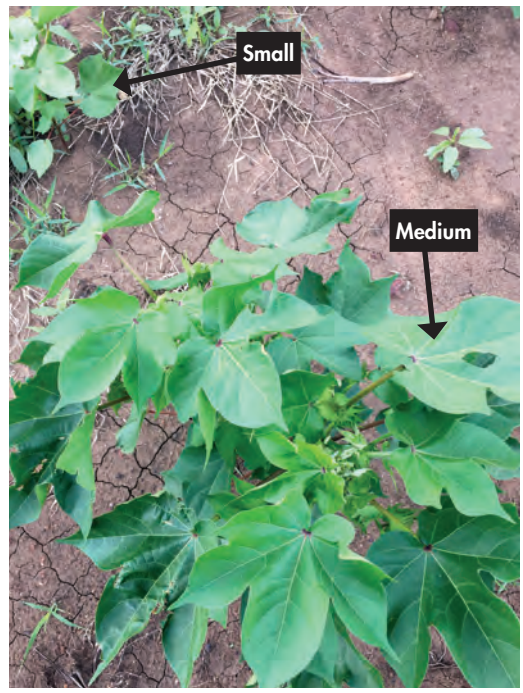
Ratoon cotton showing regrowth from plant stalks or stems after harvesting.

Ratoon cotton, or stand-over cotton ("oorstaankatoen"), is cotton that regrows from plant stalks or stems, after harvesting. The stems are left on the field during the winter, to regrow during the next planting season. However, this can happen at any time when conditions are favourable for the plant. Following the harvesting of cotton, the plants are usually left for cattle to feed on in the case of small-scale farmers. Remaining cotton stalks are slashed and burnt, or cut back, and left to stand over during the winter season. Long lateral branches can grow from the lateral buds on the stalks when conditions are favourable.

After the first rains, new regrowth can be seen on the left-over stalks, and the cotton plant revives itself to present early season vegetation, which serves as a food source for unwanted pests.

It is not recommended to let herbicide-tolerant cotton stand over. Tolerance to some specific glyphosate products may not be expressed sufficiently in these plants. Weed control on ratoon cotton has been a huge problem on conventional varieties. At present, in the case of planting with genetically altered varieties, weeds and insects on these plants are difficult to manage in the new season when plants were ratooned. Traditionally, light disking or manual removing of winter weeds between the rows were performed. Crop development will be quicker in comparison with newly sowed cotton, and the farmer will have to manage spraying and harvesting programmes at different times (Figure 1).

Figure 1: Ratoon cotton indicating the variation in cotton development, showing small and medium-sized plants within a field, making pest management difficult, since plants are in different stages of development.



In the case of the small-scale farmer the practice is used to save on input costs. The producer is under the impression that when cotton is planted and allowed to regrow (ratooned), it provides food for his cattle, and that input costs with regard to seed costs for the coming season are minimised. Ratooning cotton is usually followed only in areas where rain-fed cotton is planted, and when the field is not used to plant any alternative crop.

In the case of the commercial farmer, cotton is sometimes ratooned under rain-fed conditions. Cotton is planted under double-row-skip-row practices, with the main aim of conserving soil moisture.

Negatives around ratooning: Cotton in the winter can sprout early if mild weather is present, and the roots and stems serve as overwintering sites for pests such as the Cotton stem weevil, Black cotton beetle, as well as false-wireworms. Larvae of the weevil prefer young soft leaf stems or shoots, and larvae of the Black cotton beetle can overwinter on the roots, while adults that emerge are often found under the debris on top of the soil. Adults of both of these beetles prefer young leaves. The availability of food early in the season, causes pest populations to increase before newly planted cotton is planted in the area. Pests such as the Common cotton stainer, and the Dusky cotton stainer, can appear early in the season on open bolls on ratooned cotton, and can be a threat to newly planted cotton which is still in an earlier development phase (Figure 2).

In addition, bollworm larvae pupate in the soil and if the soil is not cultivated by ploughing or disking, these pupae emerge quickly and adult moth populations can increase early in the season, causing abnormal stresses on *Bt*-cotton. Thus, early sprouting of the cotton

Figure 2. Regrowth of ratoon cotton, appearing when fibre from the previous season is still on the plant. In this case, seeds provide food for Dusky cotton stainers, while new green growth provides food for the Cotton stem weevil (*Apion*).

stems provides ample vegetation for pests to feed on and multiply, and these pests can be a threat to other newly planted cotton in the area. Plant population stand is often affected, and the timing of crop management is earlier than newly planted cotton, making synchronising activities on the farm difficult.

Ratoon cotton poses potential issues around the development of plant diseases. Organisms that cause diseases such as Verticillium wilt and Bacterial blight (angular leaf spot) are carried in plant debris and infected plants (Niles & Greeff 1989). When plants are ratooned, the debris on the soil provides a reservoir for the presence of the organisms that cause these diseases from one season to another, especially plant debris that is not buried in the soil. Approaches to minimise plant diseases include crop rotation, crop destruction and the ploughing in of plant material. In the case of ratoon cotton, neither crop rotation nor soil cultivation is taking place, which allows for these organisms to thrive. According to Niles & Greeff (1989), shredding and burial of cotton stalks promote decomposition of debris and reduce the chances of cotton plant disease development. Weed control is complicated on ratoon cotton, since weeds could originate from the winter period and provide food as alternative host plants for insects (Figure 3).

Positives around ratooning: Ratooning cotton lends itself to possible savings on land preparation, since often a no-tillage system is employed, in addition to the savings on seed and planting. However, even in the case where cotton is ratooned, license fees are payable to the patent holder of the technology. Early fruiting phases in ratoon cotton can often benefit from moisture early in the season to contribute to boll formation.

Considering short-term pest-control issues and the long-term impact of ratoon cotton, it is not considered a desirable practice for the producer.

Control measures relating to cotton in the Agricultural Pests Act, 1983 (Act 36 of 1983), Regulation 1902 of 12 September 1986, stipulate in general, that all cotton rests should be removed by 15 August, while regrowth should be prevented between 15 August and 15 September. The Act also specifies that in particular regions, including Mpumalanga and KwaZulu-Natal, not only cotton rests, but also

Figure 3. Weed management in ratoon cotton becomes complex when one farmer performs weed control (right) while another in the adjacent cotton (left) does not. Plants are in the flowering phase on ratoon cotton, while newly planted cotton in the area is only in the square formation stage.

host plants should be removed by 1 August, and no planting of cotton or host plant cultivation are allowed before 30 September for these regions. This is to limit the food availability for pests such as *Apion soleatum* (Cotton stem weevil) and *Syagrus rugifrons* (Black cotton beetle), as well as for *Diparopsis castanea* (Red bollworm larvae), the latter of which pupae can emerge early from the soil.

Producers are requested to please adhere to the specifications prescribed by the Act in solidarity with other producers in order to control these pests.

Reference:

Niles, G.A. & Greeff, M.S. 1989. Ratoon cotton in perspective. *Technical Communication*, No. 217. Department of Agriculture and Water Supply, Republic of South Africa.

FOKUS OP GROND-VOGBEPALINGS vir droëland-produsente in die komende seisoen

deur Ruan Gagiano (MSc, NWU)

Katoen het 'n verbasende vermoë om te herstel en aan te pas by droëlandsisteme (Schweizer-Reneke).

Katoen SA, in samewerking met die Noordwes-Universiteit, beplan 'n grondvogstudie in 'n droëlandproduksie-opset deur middel van die bepalings van grondvog voor, gedurende en ná die katoenseisoen. Die doel is om die katoenprodusent met oplossings vir die uitdagings van 'n droëlandproduksiesisteem te help.

In die katoenbedryf raak watertekorte, soutgehalte en temperatuur die kern rolspelers wat die effektiwiteit van oesproduksie verwesentlik. Die bestuur van grondvog het oor die afgelope dekades 'n kwessie geword wat hoofsaaklik die opbrengs onder droëlandproduksie beïnvloed. Beide die beskikbaarheid en kwaliteit van water beïnvloed die groei van die katoenplant, aangesien dit ongeveer 70% tot 90% van die plant se varsmassa beslaan. Waterstres is 'n werklike faktor wat in die hedendaagse klimaat al hoe meer na vore tree, en dit is juis nou dat die wetenskap moet fokus op die bestuur van waterhulpbronne om effektief te kan boer. Waterstres is 'n onderdrukkende faktor. In samewerking met 'n verhoogde verdampingstempo kan waterstres die groei van die plant tot 'n groot mate inhibeer.

KATOEN- EN VOGMONITERING

Katoen het sy oorsprong gevind vanuit warm, humiede areas, en gevolglik het studies bevind dat katoen meer droogteweerstand bied as ander ry-gewasse soos mielies en soja. Alhoewel katoen tot 'n mate weerstand bied teen droogte, kan die plant nie effektief groei sonder genoegsame water nie. Dit is veral belangrik om genoeg vog in die grond te hê vir ontkieming van die saad. Vog laat die embrio teen die saadhuis druk, deur die saadhuid te laat swel en bars om die stammetjie of hipokotiel van die saad te laat deurbreek deur die boonste lagie grond of kors.

Tesame hiermee moet ideale grondtemperature in die boonste 3 cm van die grond heers. Temperature moet konstant vir tien dae tussen 17 °C en 18 °C wees voordat ontkieming suksesvol sal plaasvind, en om die eerste ronde blare ("cotylodons") bo die grond te vorm. Dit is juis hierom dat die bestuur van die beskikbare waterbronne (watertafels) of grondvog in verhouding tot grondprofiele deur die winter belangrik is, en direk na die eerste reën. Saam met die bestuur van grondvog, moet faktore soos die gepaste landvoorbereiding, optimale planttye en kondisies, plantestand met betrekking tot plantdigtheid en rywydte, en ander moontlike grondvogbewaringstegnieke deurgaans gemonitor word. Katoen is redelik droogtebestand, as gevolg van sy penwortelstelsel wat meer as een meter diep kan groei, en het 'n verbasende vermoë om te herstel of aan te pas by droëlandsisteme. Hierdie aspek van katoen is reeds in die huidige seisoen in Schweizer-Reneke gesien (sien hooffoto).

Om die verband tussen die plant en sy waterverbruik te verstaan, word kennis oor die grond en sy eienskappe met betrekking tot waterhoukapasiteit vereis. Daar is verskeie studies rondom die verandering in waterverbruik van die plant in sy verskeie sensitiewe groeistadiums gedoen, maar die fokus het nie op die bestuur of die monitering van vog geval nie. Grond dien as die groeimedium sowel as die bron van water vir die katoenplant, en daarom is dit die beginpunt om te verstaan hoe grond en vog die veselkwaliteit en oesopbrengs kan beïnvloed.

STUDIEFOKUS

Die fokus van die voorgenome studie is om die variasie van vog in die grond vanaf die begin van die plantseisoen tot die oestydperk

te monitor. Die grondprofiel is 'n kernaspek van die studie, aangesien dit die waterhoukapasiteit sal beïnvloed. Grondprofielklassifisering van die studie-area tesame met die analisering van die grondmonsters sal gedoen word. Die doel van profielgate is om vas te stel of daar moontlike beperkende lae in die grondprofiel is wat help met die akkumulasie van water wat beskikbaar is vir opname deur die plant. Die beperkende lae kan ook as 'n negatiewe aspek dien, aangesien dit die wortels se groeidiepte kan beperk.

Met profiel-analisering kan grondhorisonte vasgestel word, wat moontlik die wortelgroei kan beperk deur die spesifieke profiellae se chemiese samestelling. Die analise van die grondmonsters sal die bepaling van die persentasie sand, slik en klei behels, aangesien die waterhoukapasiteit van die grond toeneem soos wat die inhoud van die slik en klei toeneem. Verdigting is 'n belangrike aspek, aangesien dit die groei van die wortels kan beperk en tot 'n verswakte oes-opbrengs kan lei. Die bruto-digtheid van die grond sal bepaal word deur beide 'n neutron-vog/digtheidsmeter en 'n penetrasiemeter te gebruik.

Vogmeters word op strategiese punte in die land opgestel.

Die vog sal gemonitor word deur vogmeters op strategiese punte in die land op te stel. Die organiese koolstofinhoud van die grond sal bepaal word, aangesien dit gekorreleer kan word met die waterhoukapasiteit van die grond. Die bogenoemde toetse se resultate sal met die kwaliteit van die katoen vergelyk word, om vas te stel wat die invloed van die grondprofiel op die oes-opbrengs is, en moontlik hoe vogbeskikbaarheid deur die seisoen veselkwaliteit kan beïnvloed.

Jozeph du Plessis van Schweizer-Reneke word by voorbaat bedank vir sy samewerking om te help om antwoorde te vind vir die droëland-produsent.

BENUTTING VAN INLEIDENDE GRADERINGSKURSUSSE bevestig vertroue in katoenbedryf

deur Gert Klindt, Hoof: Kwaliteitsbeheerafdeling, Katoen SA

Die kwaliteitsbeheerafdeling van Katoen SA het tydens April 2019 vir amptenare van drie pluismeulens en een van die plaaslike katoenmakelaars 'n inleidende graderingskursus by Vaalharts Katoen aangebied.

Die doel van die kursus was om die basiese beginsels rakende die gradering en klassifikasie van katoen te verduidelik. Die belangrikheid van ontledings met behulp van hoëvolume-instrumente (HVI) en die eenvormige benutting daarvan in die bemarkingsomgewing is ook benadruk.

Die volgende belangrike fasette van die leerplan is tydens die kursus behandel:

- Bekendstelling en oorsig van die funksies van Katoen SA.
- Die belangrikheid van die graderingsfunksie en die ondersteunende rol wat die katoen-gradeerder hierin speel.
- Die rol en benutting van die verskillende rolspelers in die graderings- en klassifikasiefunksie.
- Bekendstelling, oorsig en aanwending van die internasionale veselstandaarde en Suid-Afrikaanse plukselstandaarde soos dit tans in die Suid-Afrikaanse sisteem toegepas word.
- Verduideliking en definiëring van die belangrikste veseleienskappe wat 'n rol speel in die graderings- en klassifikasieproses en die bepalende invloed daarvan op prysvasstelling.

Kursusgangers besig met hulle praktiese evaluering van katoenpluksel.

Heyn Laubscher (links) en Willie Maree (regs) van Noord-Kaap Pluismeule saam met Gert Klindt, Katoen SA.

Persone wat die kursus bygewoon het: Voor v.l.n.r.: Calvin Knight (Katoen SA), Rinus Christie (Vaalharts Katoen), Erenchia Barnard (Vaalharts Katoen), Gert Klindt (Katoen SA), Abraham Smith (Vaalharts Katoen), Johan Wolhuter (Vaalharts Katoen) en L'Jay van Vuuren (Vaalharts Katoen). Agter v.l.n.r.: Lourens de Jager, André van Niekerk en Oageng Nerwande (almal van Vaalharts Katoen). Nie op foto: Heyn Laubscher en Willie Maree (Noord-Kaap Pluismeule) en Courage Mandivenga (Branson Commodities).

- Praktiese graadtoekenning en die identifisering van die toepaslike kleurwaardes (Rd en +b) van geselekteerde monsters.
- Bekendstelling van die uiteensetting en benutting van die HVI-sisteme/instrumente binne kwaliteitsprofielverband.

Goeie groepsbesprekings het ná die praktiese graadevalueringsessies plaasgevind, en dit het bygedra tot die sukses van die opleidingsessies. Hierdie kursus behoort 'n positiewe bydrae te lewer tot die selfvertroue van persone wat die ontvangs en hantering van katoenpluksel behartig.

Die algemene gevoel was ook dat opvolgkursusse van 'n meer gevorderde aard aangebied moet word, en waar moontlik nog meer praktykgerig, om die ervaringsveld verder te verbreed en te verbeter.

SUSTAINABLE FASHION: FIVE WAYS TO SHOP SMART

by Tanya Aucamp

In the fickle world of fashion, sustainability has finally become a hot topic and for a good reason. There is no escaping the fact that fashion is often cited as one of the worst offenders because the industry trend cycle promotes consumers to buy more than they will ever have time to wear. Then the next big thing comes along, and the clothes no longer deemed "on trend" go to waste, or worse, end up as landfill. It is, however, not only the issue of waste that is the problem; the way clothes are produced is also harmful for the environment, so it is a double-edged sword.

By adopting a more mindful approach and simply changing our shopping we can make a big impact. So before we start, this is not simply a lecture about buying less; it is a guide on how to buy smart. Navigating the increasingly complicated business of sustainable shopping is not easy but here are five positive steps we can all consider:

1. CHAMPIONING SUSTAINABLE BRANDS IS A GOOD PLACE TO START

Meghan Markle may have spent £60 000 on her royal tour wardrobe but she did showcase brands that are trying to change the harmful way

Meghan Markle in a linen Reformation sundress.

Vintage clothing.

the fashion industry has done business in the past. Among the brands were Rothy, who makes shoes from 100% post-consumer water bottles; Outland denim, organic cotton jeans crafted by seamstresses being paid a living wage; Veja fair trade sneakers constructed out of wild rubber and organic cotton; and a linen Reformation sundress that was created with 11,9 lbs less carbon dioxide than a conventional design. By investing our money in responsible fashion brands we can make a difference.

2. DON'T FOLLOW THE FADS

Another way we can help is by prioritising style over fleeting fads and not caving in to the pressure to buy into each new trend that comes along. Consumers in the UK have an estimated £46,7 billion worth of unworn clothes in their closets. So, before you make that snap decision to order 10 new whimsical items, take a moment to ask yourself: Do I really need this?

3. INVEST

Instead of buying into every trend, buying one investment piece that will withstand the test of time is a good way to cut down on the amount of clothing we buy. You don't have to stop shopping, it is about looking at the way you shop and buying with a long-term view.

4. DON'T SHOP LATE AT NIGHT

Another pitfall to avoid is that late-night online shopping fix that often leads to shopping mistakes that quite often don't get returned. Going into a shop and trying things on is proven to cut down on costly mistakes. It also cuts down on transportation.

5. VINTAGE CLOTHING

If we all swapped one new purchase for a vintage piece of clothing, we would make a huge difference. Fashion simply goes in cycles and every era comes around again. Whether it is the 50s, 60s, 70s, 80s or 90s, fashion loves a revival. So instead of buying a copy of an original piece, why not buy an actual vintage piece instead?

This way you do your part for the environment while also ensuring that you are wearing something no one else will have. It is a great

way to put a unique stamp on your wardrobe and develop your own sense of style. Celebs like Billie Pipler, Alexa Chung, Jameela Jamil, Fearne Cotton, Sadie Frost, Pearl Lowe and Jenna Coleman are big vintage fans and are often spotted on the red carpet in one-off pieces.

WHAT ARE RETAILERS DOING TO HELP?

The good news is that some retailers are slowly catching up and doing their part. For them the dilemma is not exactly hard to see. Driven by our demand for affordable clothing and facing turbulent trading conditions they are under more pressure than ever to cut costs. Sadly, this does not exactly go hand in hand with saving the environment. Ultimately, all fashion brands need to start investing in eco-friendly production and sadly, we are a long way off. But they are making baby steps.

Sustainability leaders Marks & Spencer's (M&S) Plan A outlines 10 key steps that underpin their commitment to making their clothing and home business more sustainable. Some key areas are using the best raw materials.

By 2019 all of the cotton used will be from more sustainable sources. That means over 50 000 tonnes of cotton will be produced using significantly less water, pesticides and fertiliser and providing hundreds of thousands of smallholders with a better income.

They are also working with Prince Charles' International Sustainability Unit and the Textiles Exchange to build a coalition of 50 companies across the world, committed to only using sustainable cotton. They have banned all cotton sourced from Uzbekistan because of its poor environmental and social record and recently also banned cotton from Turkmenistan.

They have also banned the use of angora and mohair, have an industry code of practise regarding the use of pollutants, are tackling the micro-plastics and use 100% sustainable wood. M&S also publishes the name of their factories on an online transparency map.

Seven years ago, Swedish high-street retailer H&M launched its Conscious Exclusive Collection designed to promote the use of recycled materials. This year alongside organic linen, cotton and silk, Tencel and recycled polyester, H&M has introduced two new materials. The fresh products are recycled silver, to create jewellery, and Econyl – a 100% regenerated nylon fibre made from fishnets, which will be used to craft intricate pieces of lace. Alongside this, they also sell a conscious collection that uses recycled fabrics.

The fashion industry at large has a long, long way to go but by changing our shopping habits, we can all do our part to force change.

Source: Edited from https://www.mirror.co.uk/3am/style/celebrity-fashion/sustainable-fashion-5-ways-shop-13549501

DEMAND GROWS for cellulose fibres

by Koot Louw, Cotton SA

The worldwide demand for fibres is growing by about three to four per cent each year because of population growth and rising wealth. In 2018, the global demand for fibres reached 106 million tonnes.

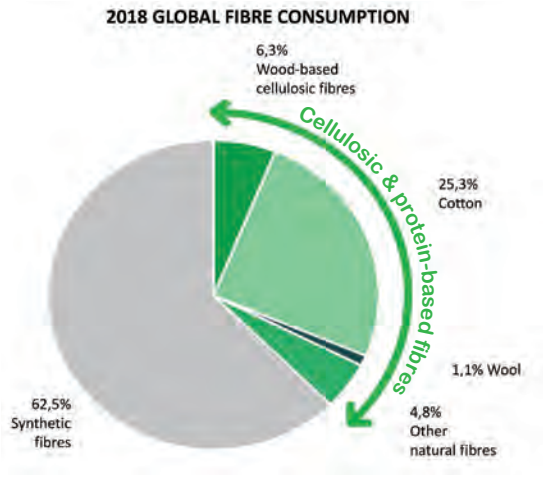
Three trends are shaping overall developments in the global fibre market:

1. Population growth is a driving force in global fibre consumption.
2. Rising wealth generates additional demand, particularly in emerging economies.
3. Concern is growing about sustainability and climate change. Consumers increasingly prefer products manufactured with a lower environmental impact and produced by using fewer (and more sustainable) resources.

These trends drive the demand for fibres with properties such as absorbency and moisture management, which also make clothing more comfortable. One group of fibres especially suited for this purpose is cellulosic-based fibres, which can be split up into two groups, natural cellulose fibres and manufactured or wood-based cellulose fibres.

NATURAL CELLULOSE FIBRES

Natural cellulose fibres such as cotton, flax, hemp and jute are usually still recognisable as being from a part of the original plant because they are only processed to a level needed to clean the fibres for use. For example, cotton fibres look like the soft fluffy cotton bolls that

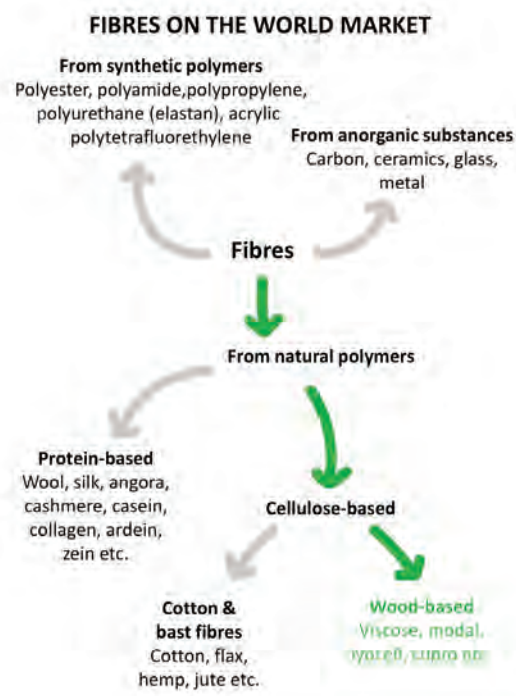


they come from. Linen fibres look like the strong fibrous strands of the flax plant.

WOOD-BASED CELLULOSE FIBRES

Manufactured cellulose fibres such as viscose, modal and lyocell come from plants that are processed into a pulp and then extruded in the same way that synthetic fibres like polyester or nylon are made. Rayon or viscose is one of the most common "manufactured" cellulose fibres and is made primarily from wood pulp. Rayon was the first manufactured fibre developed in the 19th century, made from wood or cotton pulp and was known then as artificial silk.

Viscose, modal and lyocell fibres are biodegradable and the cellulose is sourced from renewable plants, including beech trees, pine trees, bamboo and eucalyptus trees. These fibres are a sort of hybrid, since they use the same natural cellulose found in plant-based fibres such as cotton, jute and linen, but the cellulose is then mechanically or chemically transformed into fibres.



"Rekord katoenuitvoere van meer as 25 000t vir 2018/19"

"The fit is perfect, mum, and I feel so cool!"

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