SATI
SOUTH AFRICAN TABLE GRAPE INDUSTRY

TEGNIESE | TECHNICAL

BULLETIN

Creating a progressive, equitable and sustainable table grape industry

MAY 2018

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SATI
South African Table Grape Industry

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UIT DIE KANTOOR VAN **WILLEM BESTBIER**

IS DIE GLAS HALF LEEG OF HALF VOL?

Dit is ongewoon om ‘n huldeblyk aan ‘n persoon in ‘n Tegniese Bulletin te plaas, maar dan was Michael Laubscher sonder enige twyfel ‘n ongewone mens.

Dit was ‘n uiters uitdagende oes en pakseisoen, die droogte knel en knyp steeds en daar is goeie rede tot kommer in die politieke- en beleidsomgewings spesifiek van toepassing op landbou. Maar Michael Laubscher sou die glas beslis as half vol gesien het. Suid-Afrika sou nie oor ‘n goed mededingende en ontwikkelende tafeldruiwe bedryf beskik het as ons nie oor baie dekades innoverend en vindingryk was nie. Daarbenewens het ons ‘n “can do” en “die glas is half vol” ingesteldheid en uitkyk.

Ten spyte van die knellende droogte en sporadiese teleurstellings oor kleiner korrels en laer trosgewigte kan met groot dankbaarheid bevestig word dat daar op bedryfsvlak ‘n goeie oes ingesamel en gepak is, dit is met ‘n beduidende marge die tweede grootste oes in ons bedryf se geskiedenis. Elders in hierdie Tegniese Bulletin verskyn die voorlopige 2017/2018 Seisoen Verslag wat bevestig dat die 62 miljoen kartonne (4,5 kg ekwivalente) inname merk net-net verbygesteek is. Dit is sowat 8% laer as die bedryf se grootste oes van 67,6 miljoen kartonne wat in die vorige 2016/2017-seisoen ingeneem is. ‘n Opsomming van die impak van die huidige knellende droogte op landbou in die Wes-Kaap plaas die Wes-Kaapse tafeldruiwe oes in perspektief en bied stof tot dankbaarheid. Die glas is dus half vol en nie half leeg nie.

Vanjaar se stoksensus sal heelwaarskynlik aantoon dat ons aangeplante hektare met bykans ‘n 1000 hektaar toegeneem het, maar meer betekenisvol met betrekking tot die verwagte oesgrootte is die vervanging van ou generasie met nuwe generasie kultivars en gepaardgaande hoër opbrengste. Die jong hektare tot en met 3 jaar oud bevestig dat die Suid-Afrikaanse tafeldruiwe oes vir nog ‘n paar jaar sal toeneem.

Met ‘n redelike mate van sekerheid is ‘n oesgrootte van 70 miljoen kartonne en meer dus op ons drumpel en sal ons as bedryf baie moeite moet doen om tradisionele markte te beskerm, ontwikkellende markte, waar ons reeds toegang het, te groei en te ontgin terwyl daar onverpoos gewerk moet word om toegang tot nuwe markte te kry. In dit alles moet tegnologie na die beste van ons vermoë ingespan word. SATI bly namens die tafeldruiwe boer in tegnologie en kennis belê en ‘n oorsig van die strukture en proses wat gevolg word om te verseker dat hierdie belegging die bedryfsbehoeftes op ‘n gebalanseerde wyse aanspreek, verskyn in hierdie bulletin. Sedert 1 November 2017 word die SATI Navorsing en Tegnologie-Oordrag Komitee deur die bekwame en ervare oud-navorser, Kobus Louw van Sapex, gelei.

Die markte in die Verre Ooste en Suid-Oos Asië moet eenvoudig pro-aktief ontwikkel word. Vanjaar was die ervaring in sommige van hierdie markte nie goed nie, maar ons sal nuut moet dink, beter kultivars moet uitsoek, beter moet verpak en verskeep sodat ons kompeterend in hierdie opwindende teikenmarkte kan wees. Artikels in hierdie uitgawe oor na-oes en sekondêre bederf van tafeldruiwe en die gebruik en werking van gasvelle kan dien as goeie verwysings en die opskerp van basiese beginsels ten einde ons vrugte in beter kondisie in die teikenmarkte te land. SATI se Navorsing en Tegnologie-Oordrag inisiatiewe fokus primêr op die markgeskiktheid (“compliance”) van ons produk en die verkryging van nuwe marktoegang.

Weereens moet die glas as half vol gesien word, in stede van half leeg. Daar is opwindende markte beskikbaar wat nog ontgin en ontwikkel kan word. Die jaarlikse SATI Tafeldruiwe 1-Dag Seminare wat in vennootskap met die SAWWV vanjaar in Augustus aangebied sal word, gaan op markgeleenthede en uitdagings fokus. Die seminare word op 13, 15 en 17 Augustus in Groblersdal, Kakamas en Paarl onderskeidelik aangebied en internasionale markkundiges is genooi om as gassprekers op te tree.

Noudat die 2017/2018 seisoen tot ‘n einde gekom het en, met nog slegs een maand se Europhyt verslag uitstaande, kan met vertroue bevestig word dat die Suid-Afrikaaanse tafeldruiwe bedryf se strategie om ‘n nie-gereguleerde benadering-en–dissipline tot valskodlingmot beheer vrywillig toe te pas, geslaagd was. SATI se sentrale nasionale databasis, gehuisves by en onderhou deur AgriHub, bevestig dat die bewustheid in elke produksiestreek op ‘n nuwe vlak is. Eienaarskap is deur die produsent, pakhuis, koelkamers en uitvoerders geneem om hierdie uitdaging die hoof te bied. Alle rolspelers en veral die PPECB word vir hulle toewyding en beste poging bedank.

Internasionale sensitiwiteit en bewustheid op die gebied van fitosanitêre aangeleenthede het intussen toegeneem. Dit noop ons as bedryf om ons nie-gereguleerde strategie en benadering tot selfbeheer voort te sit en selfs te verskerp. Ons pro-aktiewe optrede twee jaar gelede het ons vandag fikser en beter voorbereid om hierdie uitdagings die hoof te bied.

Die Suid-Afrikaanse tafeldruiwe bedryf se glas is beslis half vol en ons klink graag ‘n glasie op ons produsente, bedryf en alle rolspelers wat onder uiters moeilike omstandighede ‘n goeie oes ingesamel en verpak het.

Willem Bestbier

SATI RESEARCH & TECH TRANSFER OVERVIEW

SATI's Research and Technology Transfer Programme strives to identify research needs, and develop knowledge and technology tools that are relevant to the industry.

To ensure alignment with industry needs, SATI hosts research workshops in each region, where producers are invited to participate and to share their research needs. Through this process, SATI can identify research needs that are relevant to the industry, as well as identify key topics for knowledge and technology exchange.

SATI's research funding is split across six research themes:

CULTIVAR DEVELOPMENT

The breeding and evaluation of new table grape cultivars specifically suited for cultivation under South African conditions; and the assessment and performance of rootstock cultivars.

NATURAL RESOURCE MANAGEMENT

Research to support the sustainable management and efficient use of soil and water resources in table grape production.

CROP PRODUCTION

Research aimed at addressing challenges and developing innovations in the cultivation of table grapes.

DISEASE MANAGEMENT

Research which aims to minimise diseases to encourage optimal grapevine performance, by focusing on the quality of grapevine material and management practices to reduce the spread of grapevine diseases. Emphasis is also placed on disease management strategies that are safe for the environment and, as far as possible, reduce maximum residue limits (MRLs).

PEST MANAGEMENT

Research which aims to minimise the presence of pests in table grapes safely before and after harvest, with a special focus on management strategies that are safe for the environment, as far as possible, to reduce MRLs and optimise, retain and maintain market access.

POST-HARVEST QUALITY MANAGEMENT

Research which focuses on optimising the handling and storage of table grapes across the cold chain, to ensure that table grapes that arrive in the export market are of good quality and quality claims from the export market are minimised.

STRUCTURE AND PROCESS

The SATI Research Committee is a committee of the SATI Board with the primary responsibility of ensuring that the SATI research portfolio is carried out within the framework of the SATI Strategic Plan. Additionally, it is the responsibility of the committee to ensure systems and processes implemented by the SATI Research and Technology Transfer Manager are fair, and research funds align with producer needs.

Two committee types, which play an advisory role to SATI, have been established. The Technical Committees assist SATI to prioritise research needs, while Scientific Review Committees assist in assessing the science of project proposals.

The following diagram (Figure 1) illustrates the structures and processes SATI utilises to identify which projects to fund.

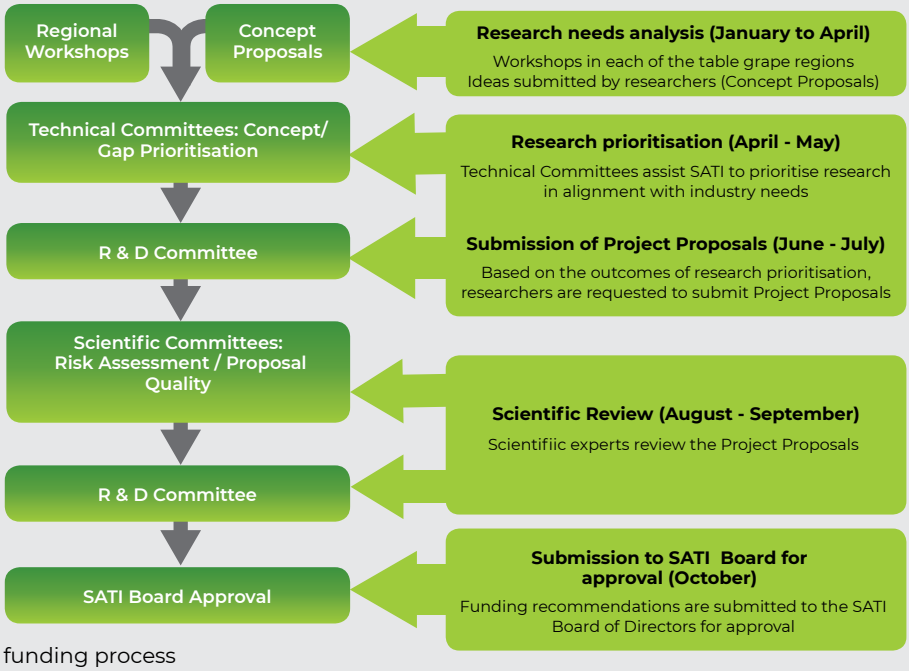

Figure 1: SATI's funding process

WHY, AND WHERE, **GOOD GRAPES GO BAD**

The well-known management dictum that what gets measured gets managed, is the principle at play in a study that seeks to answer critical post-harvest questions in the table grape industry.

Prof. Lise Korsten, project leader

Post-harvest fruit decay caused by post-harvest pathogens results in considerable economic losses. Long distribution chains are particularly vulnerable because, as fruit ripens and ages, it becomes more susceptible to decay.

Although this vulnerability is known, neither the source of inoculum in extended supply chains, nor the actual losses in the distribution chain and the pathogens involved, is fully understood.

One of the more perishable fresh fruit categories is table grapes. In extended supply chains, their demise is mostly caused by the *B. cinerea* and *Penicillium* spp. pathogens.

Despite more than 30 *Penicillium* spp. having been isolated on grapes, existing literature fails to specifically identify the ones that are pathogenic to table grapes. This lack of knowledge results in guesswork when it comes to identifying pathogens in the supply chain.

Furthermore, no evidence or traceability exists to indicate the link between pathogen profiles and losses, and what the ultimate cost to the grower is. The result is the absence of a holistic loss reduction strategy.

According to Professor Lise Korsten, senior lecturer in the Department of Plant and Soil Sciences at the University of Pretoria, the only way to address this issue is to take an all-inclusive supply chain view. "If we don't understand the causal agents involved and their impact on post-harvest decay, we cannot effectively and efficiently apply control measures," she says.

Determined to give the table grape industry a handle on the situation, Lise designed a research study funded by the PHI Programme and table grape industry. The project started in November 2014. Initially planned to be completed by the end of 2016, the project was extended to December 2017.

PROJECT AIM AND OBJECTIVES

The ultimate aim of the project is to identify and study the post-harvest pathogens that cause rot on table grapes as they move through local and export chains, so that more effective end-market disease control approaches can be developed.

Project objectives were formulated around three project facets.

FACET 1

- Determine the reason for decay in the local table grape supply chain by linking pathogens with losses, and quantify the economic impact.
- Determine the reason for losses in the export chain from South Africa to the United Kingdom by pinpointing causal agents throughout the chain and establish the economic impact.

FACET 2

- Develop a novel, accurate and rapid method to identify pathogens.
- Determine pathogenicity and aggressiveness of *B. cinerea* and known and suspected pathogenic *Penicillium* spp. over a table grape cultivar range.
- Compare the South African and UK distribution chains to get an overview of causal agents and the extent of post-harvest losses in the export chain.

DID YOU KNOW?

Post-harvest pathogens contribute greatly to global food losses that amount to 1,3 billion tonnes per year (FAO, 2011). *Botrytis cinerea* alone is reported to account for 20% of post-harvest losses worldwide, which is valued at between 10 and 100 billion Euros per year.

FACET 3

- Conduct a detailed economic analysis of selected table grape value chains to quantify post-harvest economic losses.

METHODOLOGY AND RESULTS

FACET 1

Local and export fruit were sampled on two farms in the Hex River Valley and two farms in the Groblersdal area. Samples of symptomatic grapes, as well as the air around them, were taken at the Tshwane, Johannesburg and Epping fresh produce markets.

Preliminary results showed that *Penicillium* species, notably *P. expansum*, *P. digitatum* and *P. crustosum*, are highly prevalent throughout the table grape supply chain, especially in the local fresh produce market receiving areas, and the repack and distribution areas.

Symptomatic table grapes contribute to poor air quality that, in turn, causes an inoculum build-up that can cross-contaminate other fresh commodities close to the stored decaying fruit. Air quality at the UK re-pack and distribution areas was of particular concern as the total colony forming units were significantly higher than elsewhere in the export chain.

Where table grapes are repacked and packaging is opened, airborne pathogens can cause infection if the berries have micro wounds. Poor air quality and inoculum build-up can be the source of infection in the different facilities within the table grape export chain.

A preliminary conclusion, therefore, is that air quality monitoring and inoculum reduction are of the utmost importance to ensure fresh and healthy table grapes.

FACET 2

PhD student Pat Carmichael sampled grapes on three farms in the Hex River Valley and three farms in the Groblersdal area over two seasons. Using both cultural and molecular techniques, the samples were investigated for prevalence and concentration of *B. cinerea*.

Pathogenicity and aggressiveness of the dominant *Penicillium* species were determined by inoculating different table grape cultivars with the presumed *Penicillium* pathogen and dominant isolates. Disease incidence and lesion diameters were recorded to calculate disease intensity.

Results showed that pre-harvest environments contributed significantly to the prevalence and concentration of *B. cinerea* in the supply chain. The study concluded that new-generation technology made it possible to more accurately detect *B. cinerea* at critical phases of infection during berry development. This provided a more targeted control opportunity, based on the level of inoculum at the different berry development stages, resulting in reduced post-harvest losses.

The table grape project team members are (from left) Tarryn Wettergreen, Nazareth Siyoum, Prof. Lise Korsten and Patricia Carmichael.

DID YOU KNOW?

Approximately one-third of all fresh fruits and vegetables are lost before they reach consumers.

PROJECT TITLE
Table grape loss reduction technology

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DURATION
Three years (11/2014 to 12/2017)

PHI PROGRAMME & INDUSTRY CONTRIBUTIONS
R1 369 960 & R484 660

LEAD INSTITUTION
University of Pretoria (Department of Microbiology and Plant Pathology)

BENEFICIARY
The table grape industry

FOCUS AREA
Post-harvest disease control

HUMAN CAPITAL DEVELOPMENT
One Post Doc student, one PhD student, two MSc students and one Hons student

PRESENTATIONS AND PAPERS DELIVERED
Five

PUBLICATIONS
Seven

The spores of phytopathogens, such as Botrytis cinerea, can be present in buds at the beginning of the season, but will only develop post-harvest when conditions are favourable.

FACET 3

On the economic part of the project, MSc Agric Economics student, Lianda Louw, collected primary data via electronic questionnaires and telephone interviews with relevant stakeholders. Secondary data was collected through collaboration with various supply chain stakeholders.

Preliminary results, based on the analysis of both sets of data, indicated that significant losses and waste occur before produce leave South Africa. Importantly, losses and waste appeared to not be measured throughout the chain, hence making it almost impossible for role players to implement strategies to mitigate the negative impact on return on investment.

1. By knowing which pathogens are present in every link of the table grape export supply chain, from the vineyard, packhouse, cold room.

2. Reefer container and finally where the fruit is in the consumer's shopping basket, make it possible to link pathogens with losses.

3. Nadia Botha does air sampling while Patricia Carmichael and Nazareth Siyoum are ready to lend a helping hand.

PROJECT EXTENSION

An initial delay in approving the project caused the research team to miss the 2014/2015 table grape export season.

Fruit collection in the local market started as planned but the delay in following the export chain caused a knock-on effect in terms of pathogen isolation and identification, and data analysis.

The team was therefore granted an extension in order to follow the export cycle in the 2016/2017 season so that the statistical requirement of the repeat of trials could be met.

THE POSSIBLE ROLE OF POOR COLD CHAIN MANAGEMENT OR CROSS-CONTAMINATION IN TABLE GRAPE DECAY

Table grapes are highly perishable. Their market life is a function of time and temperature, with the degree of deterioration linked to the length of exposure to higher temperatures, and handling practices.

Recently a simulated table grape supply chain revealed what really happens during the post-harvest life of grapes. It gave the industry much to consider with regards to market chain logistics and management.

In her study, Patricia Carmichael stored table grapes for four, six and eight weeks at cold-storage temperatures, and later exposed them to ambient temperature for four and seven days, respectively.

The aim was to determine the keeping quality at the end of the chain, and further assess the incidence of postharvest pathogens under simulated conditions.

Preliminary results showed symptoms of mainly *Botrytis* at the end of the study period. Prior to exposure to ambient temperature, less than 5% of the stored grapes showed *Botrytis* symptoms eight weeks after cold-storage.

Contrary to the prevalence of post-harvest pathogens observed along the local and export chains, a very low prevalence of *Penicillum* (<2%) was observed in the simulated chain.

However, given the effect of seasonal differences, the study was repeated in 2017 to reach a conclusive statement.

The physical appearance of table grapes after six weeks in cold-storage (a) followed by four (b) and seven days (c) at ambient temperature. Botrytis symptoms (c) were evident on bunches after seven days of shelf life.

"Reducing food losses and waste is a priority in achieving a sustainable food future with efficient food systems."

Lianda Louw

d Berries of table grapes inoculated with Botrytis isolates to test for pathogenicity.

e Botrytis symptom expression nine days after inoculation at ambient temperature.

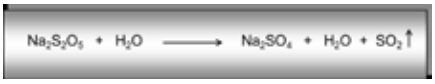
f Wet season reveals early Botrytis symptoms at pre-harvest in one of the farms sampled.

SO_2 SHEETS – A BRIEF OVERVIEW

The importance of sulphur in the table grape industry was first identified during the early 1920's in California. The rapidly increasing volume of fresh grapes being shipped taxed the resources of the railroads severely, often resulting in congestion. Delays in deliveries increased the deterioration of fruit quality in transit or storage, mainly due to the evaporation of moisture from the grapes, resulting in shriveling and decay. More efficient cold storage and sporadic fumigation with sulphur dioxide (SO_2) gas was identified as the most efficient and cost effective means by which to improve the quality of grapes during post-harvest storage. However, cold storage was limited to ice banks in the railway cars, without fans, and SO_2 was obtained by burning sulphur in the cars before closing the doors or at sporadic intervals during storage. These practices often led to losses in fruit quality mainly due to shrinkage, decay and SO_2 bleaching injury.

EARLY DAYS

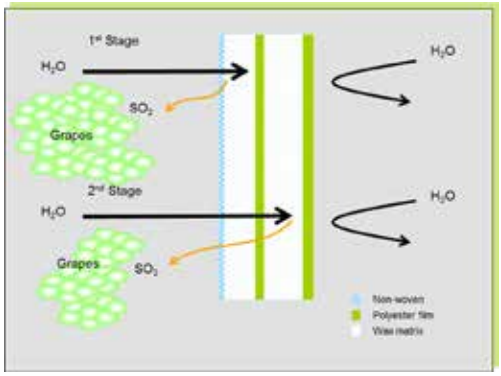
To address quality defects during post-harvest storage, the in-package generation of SO_2 was developed during the late sixties. Specially manufactured paper sheets containing sachets of $Na_2H_2SO_5$ crystals were placed inside the grape package and SO_2 gas was released upon contact with moisture through the reaction below.



The release of SO_2 gas from these paper sheets was difficult to control and often led to losses in fruit quality. Studies proved it essential for SO_2 to be applied at the correct concentration to control *Botrytis cinerea* infections as the levels required for effective control of *Botrytis* decay are close to the levels which may damage fruit. Continuous exposure of table grapes to excessive levels of SO_2 gas during cold storage poses various quality problems such as bleaching. These factors have a negative influence on the marketability of table grapes, especially for SO_2 sensitive cultivars.

CURRENT TECHNOLOGY

These factors coupled with stricter export requirements and food legislation (permissible sulphite fruit residues) stimulated advancements in SO_2 gas generators. During the late 1990's the dual release laminated plastic SO_2 gas sheets were developed that formed the foundation on which current SO_2 gas sheet technology is based. With these sheets the $Na_2S_2O_5$ crystals were encapsulated in a wax matrix and SO_2 gas is released in a controlled and predictable manner during two stages, a quick and a slow release stage. The mechanism of these sheets is illustrated below.



The quick release, or first stage release, is a quick burst of SO_2 gas, typically at gas levels of 100 to 150 ppm and is essential to kill any active Botrytis fungal spores that may be present on the berry surface. The slow, or second stage release, continuously releases SO_2 gas at low gas levels of typically one to 5 ppm for prolonged periods of up to 4 months to prevent any dormant spores that may be present on the fruit from germinating.

CORRECT USE OF SO_2 SHEETS

Unused SO_2 sheets should be stored in a shaded area (preferably a roofed building) within their original packaging and only opened when required for use. High atmospheric moisture (humidity) will otherwise activate the chemical process. Unused sheets should therefore remain dry and should not be exposed to extreme heat (more than 50 °C) in order not to compromise the integrity of these products.

Correct handling and cooling of table grapes makes for a successfully packed product and combines well with SO_2 application. Grapes should preferably have a pulp temperature cooler than 30 °C and ideally between 18 and 24 °C when packed, although this is not always possible for instance when field packing or during heatwave conditions. This assists in maintaining fruit quality. Hot grapes (pulp temperature higher than 32 °C) tend to respire very actively and this may cause excessive moisture build-up within the carton liner when it is closed and the grapes are cooled. Grapes cooler than dew point (varies depending on relative humidity, but typically around 15 °C in grape growing areas) when packed, will be moist or wet to the touch and this will exacerbate issues such as slip skin, cracking, infection, spore germination and SO_2 bleaching. Drier grapes tend to store and travel better and last longer.

SO_2 sheets may be applied in the field (field packing), in the pack house (shed packing) or even after cooling (post packing). The timing is usually determined by the resources available and the costs involved. Any partially used bags/packages with SO_2 sheets should be resealed with tape at the end of a packing day/shift to avoid wastage.

Table grapes are typically packed inside a carton within a large liner bag. SO_2 gas is heavier than air and therefore SO2 sheets are best placed on top of the grapes. The SO_2 gas flows down from the sheet as it is generated and sterilizes the fruit surface from especially *Botrytis cinerea* spores. This sterilizing fumigation represents the first/fast release portion of a dual release SO_2 sheet.

The second/slow release portion of a dual release sheet is a slow constant release of SO_2 that is below 10 ppm to avoid an exceedance of sulphite residue in the skin of the grape berries. The maximum residue level (MRL) allowed is 10 parts per million (ppm) in most countries including the EU, UK, USA and Canada. The primary function of the second stage is to inhibit latent/secondary Botrytis during storage or transport.

Some SO_2 sheets can be placed directly on top of the fruit (for instance Uvasys), most require a moisture absorbing material (MAM) sheet to be placed in between the SO_2 sheet and the fruit. The use and placement of MAM sheets is very traditional, but with the advent of larger and higher amounts of perforations, grapes in South Africa tend to be drier with less free moisture/water in the liner bag, eliminating the need in most cases for a MAM sheet to be used. It does however remain a widely-used product. If used, the MAM sheet can be better placed on top of the SO2 sheet since this area just under the flaps of the closed liner bag tends to be the place where most condensation forms as hot, humid air inside the carton liner meets a cooler surface and precipitates to form water.

Any packed wet fruit are at risk of SO_2 bleaching. The SO_2 gas inside the atmosphere of the carton gets in contact with free moisture/water to form light sulphuric acid that concentrates to form sulphuric acid. Acid will bleach grape skin and is especially obvious on red grapes due to the loss of colour. Primary bleaching is identified as otherwise wholesome grapes that have a bleached skin.

Secondary bleaching is not the same and occurs where SO2 is in contact with damaged grapes. The damage may for instance be due to splitting or hairline cracks (e.g. after rain damage), cuts and bruises (e.g. poor handling) or berry shatter (weak attachment of pedicel). In this case the SO2 and resulting bleaching is necessary as these wounds are ideal entry points for *Botrytis cinerea* (a wound pathogen) which would otherwise infect. Secondary bleaching can be avoided by packing wholesome grapes.

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DIE RASIONELE DENKWYSE AGTER DIE GEBRUIK VAN BIORASIONELE PRODUKTE

Volhoubaarheid is tans 'n globale fokus. Die Landboubedryf se sukses is ook hieraan gekoppel tesame met vernuwing en winsgewendheid. Daar is wel sekere uitdagings wat oorkom moet word om produktiwieit oor die langtermyn te optimiseer en terselfdetyd voedselsekuriteit te verseker met minimale impak op ons agroeksosisteem.

Die gebruik van Biorasionele Produkte is een van die opsies wat produsente kan oorweeg om meer volhoubaar te boer. Biorasionele produkte is 'n nuwe benaming vir 'n wye reeks produkte wat minimale impak op die agroekosisteem het en wat se oorsprong biologies of semi-biologies van aard is. Hierdie reeks produkte sluit mikrobiese opsies, organiese sure, plantekstrakte, ferromone, minerale en ander aktiewe bestandele in wat van natuurlike of biologiese oorsprong afkomstig is.

Volgens verskeie bronne berus die toekoms van landbouproduksiestelses ten opsigte van gewasbeskerming op die beginsels waar laasgenoemde tipe opsies met bestaande selektiewe chemie geïntegreer word. Produsente besef reeds die erns van die saak en daar is verskeie voorbeelde waar hierdie tipe produkte reeds op kommersiële vlak gebruik word om sodoende te voldoen aan die basiese beginsels van volhoubare landbou en terselfdetyd die produksie van vrugte en groente wat geskik is vir uitvoer en lokale markte gebruik.

Plantgroeireguleerders is een van die voorbeelde van waar hierdie produkte gebruik word om vrugkwaliteit te verbeter en opbrengs te verhoog. ProGibb® *(GA3)* op sitrus word byvoorbeeld gebruik om vrugset te verhoog en terselfdertyd kraakskil te verminder. Dit word ook op tafeldruiwe gebruik vir trosverlenging, trosuitdunning en korrelvergroting. Op appels word produkte soos MaxCel® (*6-BA*) gebruik vir vruguitdunning, vrugvergroting en verbetering van blomkwaliteit in die daaropvolgende seisoen. Produkte soos ReTain® *(AVG*) kan ook op appels gebruik word om die oesdatum te skuif en sodoende is minder arbeid nodig, terwyl die langer hangperiode ook kan lei tot beter vruggrootte en kleur terwyl die vrugkwaliteit behoue bly.

Fig. 2. Die gebruik van Plantgroeireguleerders sal voedselkwaliteit verbeter en produktiwiteit verhoog. Byvoorbeeld die gebruik van ProTone™ (S-ABSA) vir kleurontwikkeling om sodoende uitpakke te verbeter en die hoeveelheid kere wat 'n blok gesny word te verminder.

Mikrobiese produkte en bioinsekdoders is ook 'n verdere manier waardeur gewasbeskerming bewerkstellig kan word met minimale impak op die agroekosisteem. Mikrobiese produkte sluit virusse, bakterië, entomopatogeniese nematodes en - fungi ook in. Een van die praktiese voorbeelde is waar DiPel® (*Bacillus thurgiensis* – Bt) gebruik word vir die beheer van insekte soos bolwurm, kommandowurm, bladmyners, zebrawurm en lemoenskoenlapper. Daar is sekere chemise produkte wat nie 'n breëspektrum effek het wat in kombinasie met bioinsekdoders as deel van 'n weerstandsbestuur program gebruik kan word.

Fig. 2. Lepidoptera larwe wat met Entomopatogniese Fungi geïnfekteer is. Foto Krediet: Prof Antoinette Malan

Biostimulante vorm ook deel uit van die Biorasionele Produkreeks en word gebruik om plante te stimuleer om maksimale opbrengs te verseker. Die toevoeging van *Mycorrhizae* tot gronde is 'n benadering wat meer aandag in die toekoms sal geniet as deel van die hernude fokus op grondgesondheidstatus en 'n meer holistiese benadering. *Mycorrhizae* koloniseer in die wortels van plante en vorm eksterne hifedrade. Die vergrootte worteloppervlak beteken die plant is daartoe in staat om minerale beter te kan opneem en verhoog ook die plant se vermoë om water te kan opneem en ook die algehele prestasie van die plant. Gevolglik sal die plant enige stress toestand ook beter kan hanteer bv. hitte- en waterstress.

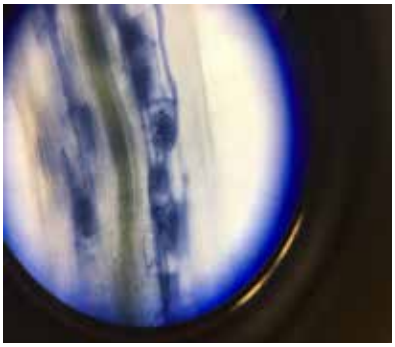

Fig. 4. Mycorrhizae teenwoordig in 'n plantwortel

Ander opsies as deel van 'n holistiese biorasionele benadering sluit die gebruik van ferromone in wat algemeen gebruik word vir insekmonitering, paringsontwrigting en lok-en-dood-metodes. Biologiese beheeragente kan ook gebruik word en daar is verskeie opsies reeds kommersieël beskikbaar bv. sekere predatore en parasitoïede wat op grootskaal in boorde en wingerde vrygelaat kan word om sekere insekte bv. witluise te beheer.

Fig. 4. Anagyrus parasitoïede besig om 'n witluiswyfie te benader. Foto Krediet: Koppert

Die finale doelwit in volhoubare landbou is om finansiële-, omgewings- en sosiale aspekte te integreer en uiteindelik te balanseer. Die gebruik van bogenoemde tipes tegnologie sal verseker dat hierdie doelwitte bereik kan word. Hierdie benadering is nie heeltemal nuut nie, maar bou liewer voort op die bestaande fokus van 'n holistiese en volhoubare benadering tot bestaande landbouproduksiestelsels.

DR JEANNE DE WAAL
Tegniese Bestuurder Philagro
jeanne.dewaal@philagro.co.za

BELLS OF JOY

RING OVER NEW SA TABLE GRAPE

New South African bred red seedless table grape launched at Fruit Logistica Berlin

From left launching Joybells at the SA Pavilion in Berlin, Mr Luke Govender, Department of Trade and Industry, Anton Kruger CEO Fresh Produce Exporters Forum, Dr Leon von Mollendorff General Manager Culdevco, Phyllis Burger Joybells breeder and Prof Bongani Ndimba Agricultural Research Council, Willem Bestbier CEO South African Table Grape Industry (SATI).

The South African breeding programme for table grapes received a welcome boost with a new red seedless variety revealed at Berlin's Fruit Logistica 2018 trade show – the world's largest fresh fruit and vegetable exhibition – on 7 February 2018.

Meet Joybells. Undoubtedly one of the most promising table grape varieties to emerge from South Africa.

Joybells was developed from an open-pollinated variety, bred by renowned SA breeder, Phyllis Burger of the Agricultural Research Council (ARC), Infruitec-Nietvoorbij, based in Stellenbosch. As the name suggests, 'Joybells' was inspired by the unique bell-shaped appearance of the fruit, as well as the remarkable taste and texture.

Those who have tasted the variety report 'sheer joy' with each characteristic explored. "Dark, vibrant red hues catch the eye, along with the distinctive bell shape of the grapes. Crunchy, firm flesh accompanies the intricate taste. A notably impressive balance of sugar and acidity."

Excellent reviews have been received from prominent global retailers, who already sold commercial shipments of Joybells as a premium variety over the past two South African table grape seasons. Best yet – their customers are coming back to buy more of this variety. In chorus, producers are taken with the fruit's yields, while distributors hanker after its superb storage ability.

Dr Leon von Mollendorff, General Manager of Culdevco, says information and plant material have been gradually released to the industry to ensure that a proper evaluation of the variety was done across the value chain, over a number of years. "The South African Table Grape Industry (SATI) and

the ARC Infruitec-Nietvoorbij, with commercialisation facilitated by Culdevco, are working hand in hand to develop unique table grape cultivars to be made available to the South African industry at affordable prices and fees."

SATI's Willem Bestbier says that the unique benefits the South African table grape industry brings to the highly competitive international trade are profitability and well-adapted cultivars. "We firmly believe that our competitive edge in the market is technology-driven and there is nothing better than a home-made success story, this time in the form of an exciting new grape variety."

Over the past two seasons over 50 000 cartons (4,5 kg per carton) of Joybells have been sold across Europe and the UK, while producers and exporters are expanding sales of this exciting new variety to other world markets during the current 2017/18 season. According to statistics, close to 200 hectares of the variety have already been planted across South Africa. Dr Von Mollendorff says that from this year, plant material is adequately available to South African producers, thus expecting plantings to expand fairly quickly.

According to the technical sheet released with Joybells it exhibits the most sought-after character traits with superb storage ability seen as a major benefit for everyone along the value chain. It is harvested from about week 3 or 4 with berries that easily reaches an extra-large berry size, and colours naturally with a recommended 'sugar level' (Brix) of 20 that can easily go up to 25.
Head of the ARC Infruitec-Nietvoorbij, Dr Bongani Ndimba said it took 15 years to get to this moment of a global release of Joybells. He congratulated Burger on developing a winning cultivar, one of 500 varieties on the books of the ARC. "This industry is worth billions of rands and euros for our economy so it's important for us to put together our show, both as a partnership between industry and the ARC," remarked Dr Ndimba.

"May your taste buds enjoy our proudly South African melody," Dr Ndimba said to the global audience who attend the launch on the South African Pavilion sponsored by the National Department of Trade and Industry (DTI). The cocktail reception where Joybells was launched was hosted by the Fresh Produce Exporters Forum. Many of the leading fresh produce media from around the world were in attendance and reported on the launch of Joybells, which was also live streamed to China.

It is clear that the arrival of Joybells will inspire advertising people – 'Ring in the New', 'Pride and Joy', 'Bells and Whistles' and 'No Joyrides' are some of the slogans that bring life to this playful brand. Throughout the value chain it will be 'Jingle all the Way', as the characteristics and performance of the cultivar warrant a premium for the grower, exporter and retailer.

Joybells is commercialised and administered in South Africa by Culdevco – a major player in the international arena of deciduous fruit licensing. This prized variety is currently exported by 12 South African export companies namely: AMC Fruit RSA, Capespan, EXSA, Anytime Investments, Clovelly De Doorns Farm, The Grape Co, Angon Fruit, Core Fruit, SA Fruit Promotors, AS Viljoen & Seuns, Dole South Africa and Star South Fruit.

More information about this exciting new variety can be found on Culdevco's website, www.culdevco.co.za.

GOVERNMENT'S CASP FUNDING BOOSTS BBBEE INITIATIVES IN WESTERN CAPE

Wilton September, SATI's Transformation Manager, is thankful for both national and provincial government's support of black farmers.

The South African Table Grape Industry (SATI) would like to thank the National and Provincial Department of Agriculture for the Comprehensive Agricultural Support Programme (CASP) funding availed to the BBBEE Initiatives in the Western Cape, through their commodity approach.

Since 2015 the Western Cape Department of Agriculture contributed approximately R22 million towards the support of BBBEE Initiatives in the table grape Industry. SATI contributes towards these initiatives through advisory and information services, technical assistance, training of beneficiaries, subsidising of planting material, CPAC administrative tasks in accordance with the standard operating procedures provided by the Western Cape Department of Agriculture. SATI further subsides the meetings and BBBEE representative's costs to partake in the assessment and allocation process.

Over this period smallholder projects and the commercialisation of the black farmers received a tremendous boost. These funds and contributions of other financing institutions were utilised to enable black farmers to expand with the latest varieties, improve mechanisation, provide production inputs while one business was enabled to pack 90% of their harvest on-farm in their renovated pack shed since the land reform business was initiated. Two of these initiatives packed their first harvest (about 120 000 4,5 kg equivalent cartons) during the 2016/17 season.

All the businesses supported in this period packed close to 385 000 4,5 kg equivalent cartons during the 2016/2017 season while all of them are expanding this planting season.

SATI invites supplier businesses of agricultural inputs, machinery, infrastructure, and financing to contact us or the department of agriculture to contribute towards meaningful transformation and land reform in our industry through their corporate social investment initiatives.

WILTON SEPTEMBER

SATI DVD-REEKS OOR TAFELDRUIFPRODUKSIE BESKIKBAAR

Die SATI DVD reeks van opleidingsvideos is geredelik beskikbaar vir produsente om hul landbouwerkers mee op te lei. Dit bied goeie oorsigte van die basiese beginsels en begrippe van tafeldruifproduksie.

Die DVD's kan gebruik word vir opleiding op verskillende vlakke, byvoorbeeld praktiese opleiding van plaaswerkers in aksies soos snoei, trosvoorbereiding, oes en pak, asook vir meer gevorderde opleiding van produksiebestuurders, byvoorbeeld oesbeplanning, pakstoorprosesvloei, hand-hawing van die koueketting en wetlike aspekte van uitvoer. Dit kan ook in formele opleidingsprogramme soos by universiteite, kolleges en ander opleidingsinstellings gebruik word.

Die DVD reeks wat tans in Afrikaans beskikbaar is, is byna klaar vertaal in Engels. Dit word in die volgende rondte gevolg deur vertalings in isiXhosa en Tswana wat deur al hoe meer landbouwerkers gepraat word.

Vir verdere besonderhede en om die DVD-reeks te bestel (teen 'n nominale fooi), kan 'n epos aan **info@satgi.coza** gestuur word.

2017/2018 SEASONAL OVERVIEW – GOOD TABLE GRAPE CROP DESPITE ONGOING DROUGHT

At the time of going to print another challenging season was nearing its end with some regions performing better than expected – the Northern Provinces and Berg River exceeded the original and subsequent crop estimates. The drought that is still gripping the Western parts of the country, had a major influence on the final production volumes in the Berg River, Olifants River and Hex River regions. The original crop estimate done in the beginning of November 2017, took the anticipated influence of the drought in the Western Cape into account with a drop of between 15% and 30% in volumes predicted.

It was originally estimated that the Northern Provinces and Orange River regions, not affected by the drought, might even see an increase in the record volumes produced during the 2016/2017 season. This picture changed in the Orange River as the first month's production figures began to filter through. Regional boards in conjunction with the Joint Table Grape Marketing Forum decided to regularly adjust the crop estimate to reflect the true development of the harvest. This process was followed throughout the season to keep the markets informed on what to expect from South Africa, based on the best information available at the time.

South African table grape producers showed their adaptability and managed scarce water resources very wisely while overcoming challenges together with other industry role players to realise a good crop despite a trying season.

REGION	FOURTH CROP ESTIMATE 5 FEBRUARY 2018		THIRD CROP ESTIMATE 16 JANUARY 2018		SECOND CROP ESTIMATE 15 DECEMBER 2017		FRIST CROP ESTIMATE 03 NOVEMBER 2017	
SEASON	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
Northern Provinces	6,700,000	6,900,000	6,000,000	6,500,000	6,000,000	6,500,000	6,000,000	6,500,000
Orange River	18,700,000	18,900,000	18,500,000	19,000,000	18,500,000	19,800,000	21,500,000	22,500,000
Olifants River	2,400,000	2,600,000	2,500,000	2,800,000	2,500,000	3,000,000	3,000,000	3,000,000
Berg River	11,200,000	12,500,000	11,200,000	12,500,000	11,200,000	12,500,000	11,200,000	12,500,000
Hex River	17,200,000	18,400,000	17,200,000	18,500,000	17,200,000	18,500,000	17,200,000	18,500,000
TOTAL	**56,200,000**	**59,300,000**	**55,400,000**	**59,300,000**	**55,400,000**	**60,300,000**	**58,900,000**	**63,000,000**

Up to week 17 of the 2017/2018 season the production volumes is as follows:

REGION	2017/2018			2016/2017		% CHANGE
	FOURTH ESTIMATE	WEEKLY	ACCUMULATIVE	WEEKLY	ACCUMULATIVE	
	(4.5 Kg) EQUIVALENT CARTONS					
NORTHERN PROVINCES	6.7 - 6.9 MIL	713	6,826,553	166	5,537,362	23.28%
ORANGE RIVER	18.7 - 18.9 MIL	24	19,017,681	108	20,532,057	-7.38%
OLIFANTS RIVER	2.4 - 2.6 MIL	0	2,802,308	0	3,968,073	-29.38%
BERG RIVER	11.2-12.5 MIL	5,804	13,036,949	1,373	15,425,498	-15.48%
HEX RIVER	17.2-18.4 MIL	48,423	20,325,269	28,463	22,087,493	-7.98%
ALL REGIONS	56.2 - 59.3 MIL	54,965	62,008,760	30,109	67,550,484	-8.20%

REGIONAL OVERVIEW

NORTHERN PROVINCES

This region has seen a growth of 10% in hectares from the previous year and this, combined with ample water supply, contributed to the record volumes produced this season. The production of Tawny Seedless increased by 37% while Red Globe production decreased by 24% from the 2016/2017 season.

ORANGE RIVER

During the start of the season the expectations for this region were very positive with a possible 10% increase in volumes, compared to the 2016/2017 season. However, this expectation diminished as the harvest progressed. A surprisingly smaller berry size and lighter bunch weights was realised despite ideal weather conditions during the harvest. This lead to the region producing 7% less than the record harvest of 2016/2017.

OLIFANTS RIVER

The region faced even worse drought conditions than expected as the season started. It was estimated that the region would produce 25% less than 2016/2017. But with the water restrictions of about 40% in some areas a substantial reduction was made to the estimate. Several heatwaves during December and January caused sunburn and damage to grapes, especially Red Globe. The canal ran dry during the last half of the harvesting season adding to even more misery for many producers. The region finally ended 28.79% less than the previous season, however some producers were hit even harder.

BERG RIVER

This very diverse region also suffered due to the persistent drought that gripped the Western Cape over the past couple of years. It was estimated that the region would produce 20% less than the 2016/2017 season. However, the proactive producers surprised all when they produced only 16% less than the record crop of 2016/2017. This was in line with the five-year average produced by the region. Water allocations to agriculture from the Berg River were abruptly cut towards the end of the harvest period.

HEX RIVER

From the start of the season it was suspected that the region would finally be dethroned as the biggest producing region in the country, as they were also affected by the drought. The picture drastically changed as they ended the season well above the Orange River region.

By comparing the 2017/2018 harvest up to week 17, to the 2016/2017 crop over the same period, the outlook is as follow:

REGION	2017/2018 PROVISIONAL VOLUME	2016/2017 ACTUAL	% CHANGE
	(4.5 Kg) EQUIVALENT CARTONS		
NORTHERN PROVINCES	6,826,553	5,537,362	23.28%
ORANGE RIVER	19,017,681	20,532,057	-7.38%
OLIFANTS RIVER	2,802,308	3,968,073	-29.38%
BERG RIVER	13,036,949	15,425,498	-15.48%
HEX RIVER	20,325,269	22,087,493	-7.98%
ALL REGIONS	**62,008,760**	**67,550,484**	-8.20%

With the start of a very promising rain season in the Western Cape, the industry is waiting in anticipation for things to return to normal. This will be crucial with respect to the coming 2018/2019 season. The grapevine is a very resilient plant and only time will tell if dam levels recovered due to sufficient rain.

Joseph Lombardt

Produsente voltooi wingerdstand teen 31 Julie 2018

Die jaarlikse wingerdstand word oudergewoonte tydens die af-seisoen opgedateer. Produsente word versoek om kontak te maak met Joseph Lombardt, Inligtingsbestuurder by die SATI kantoor om hul gebruikersnaam en wagwoord te kry. Hierdie gebruikersnaam en wagwoord gee produsente toegang tot die Agrihub-webwerf waar die aanlynsensus elektronies opgedateer kan word. Ons wil ook graag versoek dat produsente die afgelope seisoen afteken en seker maak dat alle kontakbesonderhede korrek is. Hierdie proses moet **teen Dinsdag 31 Julie 2018** voltooi word.

Stuur asseblief 'n e-pos aan joseph@satgi.co.za of skakel hom telefonies by 021-863 0366.

ANALYSING THE ECONOMIC IMPACT OF THE 2017/18 DROUGHT

The western cape department of agriculture (WCDOA) and the bureau for food and agricultural policy (BFAP) analysed the economic impact of the 2017/18 drought in the Western Cape. The executive summary and conclusion of the report follows below. The full report can be accessed on http://www.bfap.co.za

This policy brief highlights the adverse economic consequences of the current drought in the Western Cape on the agricultural sector to provide guidance to decision makers in dealing responsibly with this disaster.

As is well known by now, the Western Cape is currently experiencing the worst drought in recorded history. The impact of this catastrophe on the provincial economy is exacerbated by the fact that the agricultural and agri-processing sectors combined contribute more than 10% of the Province's GDP and employ around 340 000 workers whose jobs have now become even more vulnerable. These sectors also produce more than half of the net agricultural exports of South Africa at a time when the Rand has been appreciating against almost all of the leading currencies in the world.

The analysis shows significant declines in farm output, but also additional income losses as export volumes also decline (currently they are significantly lower (19%) than last year). These export industries are heavily reliant on higher margins and producers have therefore prioritised fruit exports with the available water, whilst in many cases abandoning large areas of vegetable production and other crops with less favourable profitability projections.

Industry	Total Production 2016/17	Estimated Total Production 2017/18	Drop in Production (%)	GVA Shock 2016/17 vs 2017/18 (R million)	Employment losses
Wine Grapes	1 599 728	1 279 782	-20.0	-591.21	-2 809
Table Grapes	186 772	153 000	-18.1	-787.36	-4 019
Pome Fruit	1 376 279	1 256 773	-8.7	-898.26	-9 635
Stone Fruit	319 424	293 288	-8.2	-458.26	-2 070
Citrus	311 955	287 887	-7.7	-259.24	-1 280
Alternative Fruit*	7 693	7 037	-8.5	-36.35	-220
Major Vegetables**	1 104 580	881 280	-20.2	-78.73	-2 716
Grains***	1 558 200	986 928	-36.7	-2 812.97	-7 482
Total	6 464 630	5 145 975	-20.4	-5 922.37	-30 230

Source: Own calculations

*Figs: Pomegranates **Potatoes, Onions, Butternut, Pumpkin, Carrots, Cabbage ***Wheat, Canola, Barley

Table 1: Economic impact of the drought on the Western Cape agricultural sector

The macro-level impact assessment shows that the Western Cape agricultural sector is set to lose an estimated R5.9 billion (see table 1) in the 2017/18 season as a result of the drought. The impact of this dramatic drop in production, especially in highly labour intensive industries, has resulted in around 30 000 jobs (see figure 1 below) being lost in the process. Anecdotal evidence from the labour force surveys confirms this decline. The findings suggest a severely negative impact on the agricultural sector and the financial losses estimated here suggest that many producers will come under extreme pressure and may not be able to remain on their farms.

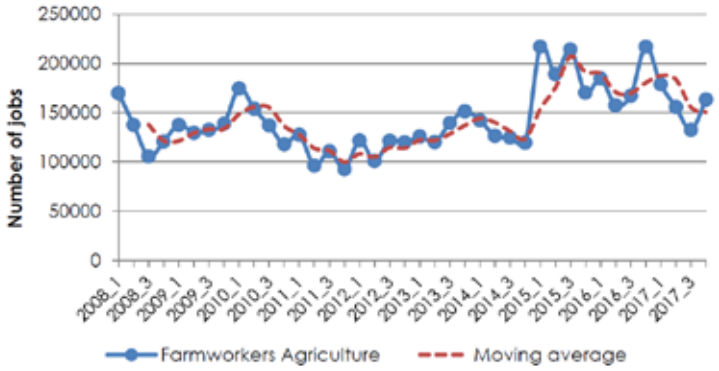

Figure 1: Farmworker employment in the Western Cape

CONCLUSION

The findings in this policy brief suggests a significant impact of the drought on the Western Cape's economy and will have severe implications for farm businesses and those employed in the sector. Compared to the previous season, aggregate income after costs is estimated to decline by up to R5.9 billion due to the lower output as a result of the drought, and is set to decimate around 30 000 jobs.

Various factors at present are exacerbating the drought impact, such as the sudden strong Rand (see Figure 2) and additional adverse external impacts such as storms, hail and sun-burn.

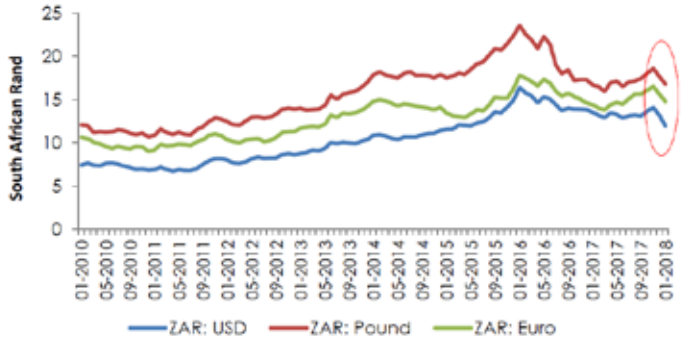

Figure 2: Exchange rates: South African Rand against major currencies

To mitigate the impact of the drought key decisions are needed to drive the sector through this difficult time. In light of the findings in this policy brief urgent and targeted interventions are needed to drive the sector through this disaster. Unfortunately no clear policy instruments currently exist which can guide the process of disaster relief to fruit and vegetable farmers. The Section 7 Drought Committee that has recently been re-convened by the National Agricultural Marketing Council (NAMC) to address some of these challenges will need to take note of the following considerations. Support to the agricultural sector by means of direct subsidies has a long history of adverse consequences and negative spill-overs. Support interventions should therefore be focussed on protecting the industry as a whole, especially emerging farmers which will not be able to continue farming due the losses incurred during the drought. Also, the livelihoods of thousands of farmworker families and the food security of poor households should also drive decisions in this regard. Indirect support to farmers to remain on-farm should therefore be prioritised in a way that supports the entire agricultural economy to get through the drought.

Additionally, the sustainability and competitiveness of the agricultural sector is dependent on the following realities. **First**, climate change has become the 'new normal', and it would seem as if the main impact on the Western Cape is going to be the extent, duration and seasonal distribution of rainfall: less rain, more summer rains, and fewer rainy days. This means that a recalculation of the water needs on the part of those charged with responsibility to supply water to agriculture and other users, and of the realistic water availability on the part of the water users, is required as a matter of urgency.

Second, the current drought is already in its third year. The farmers of the Western Cape are not passive recipients of advice from the authorities and the 'experts': they are where they are because they are forward looking, and risk takers. Obviously not all to the same extent: there are leaders and there are followers, and there are those who are historically advantaged and those who are disadvantaged, etc. Notwithstanding, they have already started to adapt to the 'new normal', as has been shown in this analysis. Public policy should therefore lean more towards support to this process of adaptation, and less to invent new ways of adapting. This requires decisions about:

- How to go about engaging with all types of farmers to ascertain what support suits their needs the best;
- What are the real bottlenecks that discourage farmers from successfully adapting to the changes;
- Which farmers should be targeted first geographically, population group, industry, etc.;
- How to separate the urgent from the important, and build priorities around the latter;
- How to approach the important issue of the timing and sequencing of reforms?
- How to synchronise the activities along the myriad of supply chains that operate in the province;
- Not least, how to protect farm worker interests in this initiative.

LOUW PIENAAR & JOHANN BOONZAAIER
DROUGHT POLICY BRIEF
WESTERN CAPE AGRICULTURE

MICHAEL LAUBSCHER
TAFELDRUIFBOER

SATI se Hoof Uitvoerende Beampte, Willem Bestbier, het op Donderdag, 29 Maart by Michael Laubscher se begrafnisdiens in die NG Kerk te De Doorns 'n huldeblyk namens die hele bedryf gebring.

Ek praat namens honderde tafeldruiwe boere oor die hele land, in al 5 produksiestreke, waaronder die Hexrivier die spogstreek is. Ek wil sommer aan alle tafeldruiwe boere vandag eer bring. Wat 'n voorreg en trots om met julle geassosieer te wees en vir julle tot diens te kan wees.

Michael was vir etlike jare op die direksie van SATI, 'n jaar of wat Onder-Voorsitter en enkele maande na my aansluiting by SATI is hy op 8 Mei 2014 tot Voorsitter verkies.

Michael was 'n beskeie, plat-op-die-aarde tafeldruifboer en sakeman met besonderse natuurlike leierseienskappe en medemenslikheid.

Hy was 'n inspirerende en 'n dienende leier. Vir hom was leierskap 'n aksie, 'n werkwoord, nie 'n posisie of 'n titel nie.

Onder sy leiding was die opdrag eenvoudig – lewer uitnemende diens en maak SATI nuttig en waardevol vir die Suid-Afrikaanse tafeldruiwe boer. Hy het dikwels opgestaan na 'n direksievergadering en my direk in my kantoor kom vra "Watter waarde het ons vandag toegevoeg vir die tafeldruiwe boer op sy plaas en/of in die mark?"

Hy het altyd die belange van die saak wat hy dien en sy medemens bo eiebelang gestel. Hy het die vermoë gehad om fyn en objektief te luister, terwyl hy jou stip aankyk, sy sterk blou oë het so heen en weer gedraai en dan het hy vinnig tot die kern deurgedring, 'n besluit geneem en gesorg dat dit met oortuiging en waagmoed uitgevoer word.

Heelwat mense en leiers het fisiese waagmoed, daarvan het Michael baie gehad. Sy rugby pêlle sal daarvan kan getuig, meer nog, sy teenstanders. Maar Michael was min wat ook oor enorme morele waagmoed beskik het. Dit is raar.

Gepraat van eiebelang ondergeskik stel. Michael was daaroor so eerlik en deursigtig. Wanneer ek met 'n bedryfsuitdaging en voorstel na hom gekom het, bv FCM beheerstrategie, het hy reageer: "Willem, wat jy nou vra pas my nie op Immanuel nie, dit pas my nie by EXSA nie, maar dit is die regte ding vir die bedryf – kom ons doen dit"! By SATI, dus die tafeldruiwe bedryf het hy hom beywer vir eenheid in bedryfsbelang en het hy ons organisasie geposisioneer as 'n dienssentrum van uitnemendheid.

Hy het opreg belanggestel in al 5 streke. Onder sy leiding het ons in elk van die streke gaan direksievergaderings hou en dan in groepies opgedeel en produsente, klein en groot, gaan besoek om eerstehands te hoor wat hul behoeftes en kritiek is.

Eensklaps het hy die bedryfspolitiek nekomgedraai. Die enigste politiek wat hy net nie kon afskud nie was die Paarl Gim / Boishaai politiek.

Hy was ambisieus en hardwerkend, maar duidelik ook 'n toegewyde gesinsman en vriend wat waarlik in die welstand van ander belang gestel het en besorg was oor mense se lewens, nie net hul werk nie. Het uitgevra en 'n week later opgevolg, "hoe gaan dit nou met jou seun of dogter?" Dan het hy ook met trots oor sy eie gesin gepraat en gedeel met ander. Hy het met elke besoek aan die SATI kantoor eers elke persoon wat op kantoor was met die hand gegroet en na hul welstand verneem. Hy was ewe gemaklik met Ministers, Ambassadeurs, plaaslik en oorsee, tot die taxi bestuurder wat ons laat aand na ete hotel toe geneem het. Altyd met 'n mooi sin vir humor en 'n vonkel in die oog.

Vir 'n jongman van 40 laat Michael 'n indrukwekkende "LEGACY" na – op die sportveld, in besigheid, op sy plase en in die bedryf, maar die belangrikste is sy vrou, Jana en 4 kinders.

Dit inspireer ons om dit voort te sit, dit te laat lewe en dit te laat groei.

Namens die bedryf salueer en eer ek vir Michael en dra Jana, sy 4 kinders, ouers en alle geliefdes aan die Sorg, Liefde en Trou van ons Hemelse Vader op.

In die woorde van Jan F E Celliers, "Stil, daar gaan 'n man verby, hy groet, daar's maar nog 1 soos hy".

Groete, Michael, ons vriend en Voorsitter.

WILLEM BESTBIER
29 Maart 2018, De Doorns

LOCAL AND GLOBAL TRADE SALUTES
MICHAEL LAUBSCHER

The passing of SATI Chairman Michael Laubscher not only came as a shock to the South African table grape industry but was felt around the world. Michael travelled the globe often, not only for his own businesses as Exsa CEO, but to represent the interest of the SA table grape industry as a whole. The local and international trade media paid homage to Michael while messages of support was sent from near and far. We share a few of the messages in this summary below:

Exsa director Leon Viljoen described it as "an incredible loss" for the industry, the company and the Hex River Valley community.

"He was such a respected person. It is not surprising that all of us, but in particular the younger grower community of which he has been such a central part, are all devastated. As business man and leader of Exsa he is well known and respected all over the world. He really took Exsa to a new level."

Lucien Jansen, CEO of the Perishable Products Export Control Board (PPECB) wrote: "...Michael will be remembered for his dedicated service to the table grape industry, the vital role he played as Chairperson of the SATI Board, as well as his never-failing willingness to assist the PPECB. His untimely passing is a loss, not only to the table grape industry, but to the agricultural community as a whole."

The Produce Marketing Association via it's General Manager for Southern Africa, Lindie Stroebel, said: "...As a young and dynamic leader, he was a valuable asset to the industry, and we mourn the loss along with you."

Nico van Rensburg, Sectary of the SA Vine Nurseries Association said: "...We honour his memory and the big contributions he has made to the table grape industry. We wish you all the strength."

Prof Maret du Toit, Professor: Department Viticulture and Oenology at Stellenbosch University said: "...I am very sorry to hear about the great setback at SATI with the passing of Michael. We wish you all the strength as the SATI family to process this and with the road ahead..."

Nicholas Dicey, Hortgro Chairperson said: "...In the difficult time that you and your industry are facing please accept on a personal note and on a broader industry note my condolences on the passing of Michael. Not only has your industry lost a respected and inspirational leader but you have personally lost a friend and confidant in his untimely death..."

Dr Leon von Mollendorf, General Manager at Culdveco said: "...We not only lost a leader in the Fruit Industry, but also a friend and gentleman."

Dappie Smit, General Manager of Dried Fruit Technical Services, said: "We share in your industry's heartache with the tragic news of Michael's passing. We continue to pray that his family and loved ones will find the necessary strength to live the life he planned for them..."

Lisa Williams on behalf of Promar International in the UK: "On behalf of Promar International, I would like to extend our condolences on the passing of SATI's chairman – Michael Laubscher. Our thoughts and prayers reach out to Michael's family, friends and colleagues during this sad time."

Max MacGillivray, head of the Great Fruit and Veg Adventure in the UK: "Very very sad news to hear about the passing of Michael Laubscher. He helped to look after us when we came through South Africa as part of the www.thegreatfruitandvegadventure.com Lovely lovely man. Our condolences to you all and his family on this sad occasion."

EMERGING TABLE GRAPE FARMERS
'TASTE AND SEE' LEADING VARIETIES IN CALIFORNIA

SATI study tour visits leading table grape breeders in California to taste and see the latest varieties. The group was led by Wilton September, SATI's Transformation Manager.

The South African Table Grape Industry (SATI) embarked on a study tour with three new entrant farmers, Hendrik Davids, Alec Abrahams and Warren Bam as well as two extension officers Johannes Links and Cobus Van Schalkwyk from the Western Cape Department of Agriculture. The delegation visited California, Bakersfield to attend the information days of Sunworld, Giumarra Vineyards, Shehaan and International Fruit Genetics who are some of the world's leading table grape breeders.

The purpose of the study tour was to broaden participants knowledge of the table grape breeding process, licensing, and the various table grape cultivars in various stages of development by these institutions. The delegation left Cape Town on the 11 August and returned on the 22 August 2017.

Mr Terry Bacon, Vice President of Variety Development at Sunworld International, welcomed the delegation on 14 August 2017. He gave an overview of the business and introduced their cultivar development programme.


Terry Bacon giving a company overview and showing the plants in the laboratorium

The group then toured the evaluation lab, embryo rescue lab, seedling development lab and molecular lab. The lab tour was followed by visits to the test blocks where new cultivars are planted for further evaluation. The visit concluded in two commercial blocks (Sugra 35 and Sugra 13) to observe how it is farmed on a big scale.

The next day the delegation visited Guimarra Vineyards where the ARRA field day was hosted on 15 August 2017. The day started with a personal welcoming by Mr John Guimarra, visiting of a commercial ARRA 15 vineyard and a plastic cover demonstration by Retilplast.


Retilplast Plastic System **Arra 29**

The delegation moved to trial blocks to observe potential new varieties and released cultivars. The Guimarra cold storage facility was visited the afternoon and the palletising using a mechanical system, pre-cooling unit and cold storage rooms were very impressive.

Last on the agenda for the day was a visit to Wonderful Nurseries, the largest grapevine nursery in North America. Approximately 10 million vines are produced per annum and capacity is increasing. All vines undergo virus testing.


Group provided with safety jackets upon entering the Wonderfull nursery premises. The cartonage facility on the right.

Perhaps most impressive was the nursery's cartonage facility comprising an area of one million square feet of concrete where around four million cartonage vines are propagated annually. The cartonage vines are placed in specially patented cotton socks for easy planting. The cotton degrades after planting and reduces root damage during planting.

Day three, Sheehan hosted their open field day in Fresno, California. This event started with a background presentation and the introduction to the most notable cultivars. Touring of the trail blocks followed to observe different cultivars under various production treatments and rootstocks. Cultivars discussed and tasted included Krissy, Carlita, Magenta, Timpson, Great Green, Timco, Apple Crisp and Allison. The day in Fresno ended with a visit to a commercial Allison vineyard.


Farmers from all over the world sitting and oberserving inputs made by the researchers during the Sheehan information day in California.

International Fruit Genetics (IFG) was our last breeder to host the group. Our first stop was the visit to commercial blocks. The cultivars observed and tasted were Candy Dream, Cotton Candy, Candy Hearts, Sweet Sapphire, Sweet Globe and Sweet Celebration.


Left: Sweet Sapphire bunches with characteristic elongated berry. Right: Group of South Africans at the IFG Cultivar Day taken in a commercial block of Sweet Celebration

The trail blocks followed the commercial blocks. A total of 16 new cultivars in various stages of development were visited. This session was followed by a visit to the Jack Pandle Cold Storage facility. The state of the art pre-cooling and storage facility was very impressive.

The day ended with five presentations by IFG representatives, as follows:

- The use of plastic structures in the table grape industry
- Practical experiences with Sweet Globe in South Africa and Namibia
- Practical experiences with Sugar Crisp in South America
- Practical experiences with Jack's Salute in South Africa
- Practical experiences with Sweet Sapphire in Australia

Field Packing was on the agenda for the 18 August 2017. The delegation returned to Giumarra Vineyards Corporation and met Mr Wayne Childress, Chief Executive Officer at Farm 14. The tour was concluded by visiting their workshop where the packing tables were made. All their maintenance on machinery are done at this workshop.

Emerging farmer feedback on the tour

Hendrik Davids a black farmer in the Robertson area had the following to say: "This is the first tour which is a life changing experience, it changed my thinking, it confirmed the importance of the new varieties. I came far to meet and experience the power of American and South African expertise from knowledgeable people".

Alec Abrahams said; "This is a must each table grape farmer need to experience, it's a revelation, I've seen and tasted it myself now. We must thank SATI for this experience, this tour exceeded my expectations".

Special thanks

A Special word of thanks to the abovementioned institutions and following people for contributing to a successful study tour: JT Nel (Capespan), Heidi De Villiers (IFG), De Witt Kamfer (IFG), Terry Bacon (Sunworld), Dirk Burger (Sunworld), Robyn Gerber (Topfruit), Stephan Nel (Topfruit), Wian Mouton (SNFL), Josep Estiarte (SFNL) and Elena Aguaron (SFNL).

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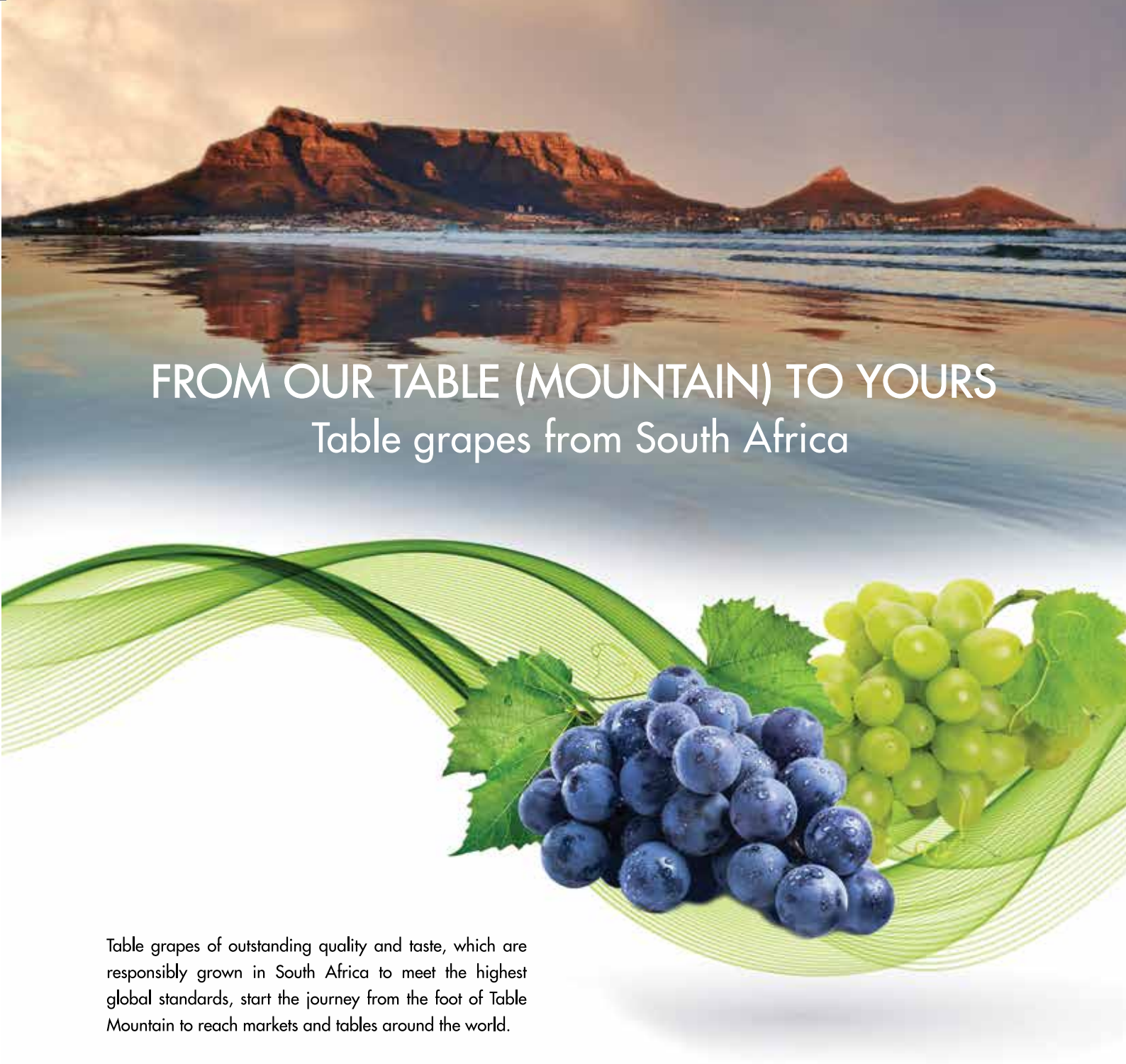

FROM OUR TABLE (MOUNTAIN) TO YOURS

Table grapes from South Africa

Table grapes of outstanding quality and taste, which are responsibly grown in South Africa to meet the highest global standards, start the journey from the foot of Table Mountain to reach markets and tables around the world.

Assisting producers to retain, grow and optimise markets is the most important function of the South African Table Grape Industry (SATI), an enabling grower association. SATI represents growers on key government and industry initiatives aimed at creating more opportunities from ownership to accessing new markets in a sustainable way.

SATI assists growers with industry information, transformation, research, technology and technical transfer, as well as training and education with the objective to establish South Africa as the Preferred Country of Origin for the world's best tasting grapes.

The next time you have grapes, make sure they come from our table!

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