A legend retires

’n Eerste vir Elsenburg

Rural Youth Development Project

Research and news magazine of the Western Cape Department of Agriculture
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In this year, 2014, we are marking 20 years of freedom and democracy. This momentous occasion presents us with the opportunity to reflect on the achievements and progress made.

The Census 2011 figures show a definitive picture of a rapidly changing country. Our major achievements are seen to be freedom, democracy and peace. Other achievements include improvement in rollout of basic services and amenities, improved racial equality and improvement in levels of income and education. Whilst celebrating our achievements, we must also recognise our challenges in looking forward to the next 20 years and beyond.

Human capital development remains a cornerstone and prerequisite for economic freedom and sustainable development. Since 1994 major policy reforms to redress past inequalities in education, transforming the education system and increasing the skills and life chances of all South Africans have been implemented. Early childhood development (ECD) is critical for improving the results of learners in the education system. Since 1994 there has been a significant increase in access to centre-based care, albeit from a low base. In basic education, gross primary enrolment in 2012 was high at approximately 98%, with gross secondary enrolment improving from 51% in 1994 to 89% in 2012. The percentage of the population aged 20 years and older that has had no education decreased from 19% in 1996 to 9% in 2011.

In the two decades since 1994 there has
been a significant transformation in the post-school education and training system. The establishment of an overarching National Qualifications Framework, the establishment of sector education and training authorities (SETAs) and various quality assurance bodies and the introduction of learnerships are but a few of these changes.

University enrolment of students has almost doubled, increasing from 495 356 students (universities, technikons and teachers’ training colleges) in 1994 to 953 373 students (public universities and universities of technology) in 2012. In 2012, women made up 58% of all students enrolled in university programmes. More black students than ever before are enrolled in higher education institutions, comprising 81% of all students in 2012. There has also been progress in increasing the number of honours, masters and doctoral graduates.

Notwithstanding the above achievements in education and training nationally, the agricultural sector is experiencing a critical shortage of appropriately skilled people. Even in our own Department human capital development has been identified as one of five priority strategic risk factors that may have a serious negative effect on the ability of the Department to deliver services on an acceptable level and the ability of the sector as vehicle for rural economic and social development if not appropriately attended to.

The implementation and current review of the Departments’ Human Capital Development Strategy is central to its efforts to facilitate the supply of appropriate skills and to attract young scientists to the sector. However, success in this regard will only be achieved if this is to be a collective effort from the multitude of stakeholders in the sector. Thus, human capital development needs to become “everybody’s business”. We therefore urge you not only to become involved in the development of the human capital development strategy, but also to involve yourself in the recruitment and development of new talent in the sector.

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A legend retires

Wouter Kriel, wouter.kriel@westerncape.gov.za

“I will retire as Western Cape Minister of Agriculture and Rural Development after the 2014 elections. I am satisfied and proud of the Western Cape Department of Agriculture’s performance during the past term, which started in 2009. If I have to mention specific highlights the following would be on my list:

• The Department received four clean audits.
• The Department was crowned by the Southern African Institute for Government Auditors as the department in South Africa with the best Annual Reporting for three consecutive years (2011, 2012 and 2013).
• The Department was nominated as the best provincial research department in the country by the independent International Food Policy Research Institute. According to the Institute the Western Cape Department of Agriculture dominates in South Africa when it comes to research capacity as well as research output.
• The Department was crowned as the most female empowered department in South Africa.
• Fifteen Rural Development nodes were established in the Western Cape.
• The Western Cape export profile for agricultural produce has improved. A focussed drive towards China has seen wine exports double since 2009 in that specific market.
• The Department implemented successful land reform in the Province. I committed myself and the Department to a 60% success rate with regards to empowerment projects in 2009. This target has been exceeded as an independent audit in 2014 found 62% of empowerment projects in the Province to be successful. In the Western Cape we are proving that with the right design and support empowerment projects can be successful.
• The Western Cape Farm Worker of the Year Competition, which is unique to South Africa, experienced growing
numbers of entrants and regions taking part each year since 2009. Shoprite also joined this initiative through a sponsorship agreement. The Annual Gala Event, where farm workers are recognised for their work, is one of the most prestigious functions on the Provincial calendar.

“I believe the agricultural sector can play a fundamental role in solving the challenges that South Africa faces. The South African agricultural community is made up of exceptional people, most of whom are true and committed nation builders.

“I want to thank the Western Cape Department of Agriculture specifically, but also the entire agricultural community, for unwavering support during my term as Western Cape Minister of Agriculture and Rural Development. Without a dedicated agricultural community of officials; farmers and farm workers, nobody will have food on their tables tonight.”
Recycle generation

Leann Cloete-Beets, leanncb@elsenburg.com and Vanessa Barends, vanessab@elsenburg.com

In support of the Western Cape Green Economy Strategic Framework for agri-production, i.e. sustainable farming practices, balancing farming and conservation needs, resources efficiency and waste minimisation, all research farms of the Department of Agriculture have adopted a recycling system. The Western Cape Department of Agriculture has several research farms throughout the Province (Nortier – Lamberts Bay, Tygerhoek – Riversonderend, Worcester, Elsenburg, Oudtshoorn, Outeniqua – George, Langgewens – Moorreesburg).

The reason for adopting this system was threefold, firstly to assist in com-
bating climate change, secondly to assist with the reduction of the carbon footprint of the farms’ activities and finally to help improve general resource efficiency and waste minimisation on each farm and by doing so showing support and commitment to sustainable agricultural practices.

To ensure the success of the system on the farms a recycle manager was identified on each farm. These managers attended a workshop on climate change and how to implement and manage recycle systems on their respective farms. This training was imperative to help all involved in the implementation and maintenance of the system, and to understand the greater environmental concerns and impacts of recycling. Each recycle manager was tasked with the responsibility of facilitating the implementation of the system on their farm. As this system will be a permanent fixture at each research farm, it was important that all employees were supportive of the project from its inception.

A small event took place on each farm, which was an exciting opportunity for the managers as this offered them the opportunity to educate all who work and live on the farm on the importance

Each recycle manager was tasked with the responsibility of facilitating the implementation of the system on their farm.
of recycling and get them involved. Some of the events included a recycle fashion show for the children living on the farms, while others had general discussions and presentations. But whatever the form of the event, the main aim was to inform and get support for the project. Going forward, all recycle managers will be responsible for record keeping of the system on the farm, assisting the farm managers with the system, ensuring that all recycled materials are delivered to their respective drop-off sites and finally providing regular feedback and assistance when needed.

To ensure the long-term success of the project employees will constantly be reminded of the importance of the project through posters, discussions and regular competitions between the farms.

A recycling system on the Department’s research farms might sound like a small initiative in the bigger picture of climate change, but many small and positive changes are sure to have powerful results.

For any enquiries please do not hesitate to contact leanncb@elsenburg.com or vanessab@elsenburg.com.
Die Wes-Kaapse Departement van Landbou het die afgelope jaar heelwat veranderinge aan die Elsenburg Landbou-opleidinginstituut se kelder aangebring – buite die vernuwing aan die fasilitéit is daar nou ook ’n hernude fokus op die hele wynmaakproses. Voorts het die instituut verlede jaar nóg ’n nuwe uitdaging aangepak deur vir die eerste keer in hul geskiedenis ’n brandewyn te botteleer.

Sedert die Suid-Afrikaanse Brandewynstigting in 1991 ’n 400 liter-potketel aan Elsenburg ge-skenk het, is brandewyn aan en af hier geprodu-seer. Daar is egter in Oktober 2013 vir die eerste keer van die produk onder die Elsenburg-etiket as ’n 13 Jaar Oue Potketelbrandewyn gebotteleer.
Die wynkunde-dosent en wynmaker Lorraine Geldenhuys verduidelik daar is voorheen slegs beperkte hoeveelhede brandewyn geproduseer, maar nog nooit gebotteleer nie. “Aangesien die brandewyn-module deel van my sillabus uitmaak, het ek besluit om die South African Brandy Course te doen en só meer hieroor te leer. Dit het my belangstelling opnuut geprykkel en die besluit was eintlik heel eenvoudig – ons hét immers goeie Colombar-druïe en die nodige infrastruktuur om topgehalte brandewyn op die perseel te produseer,” sê Lorraine.

Daar is egter in Oktober 2013 vir die eerste keer van die produk onder die Elsenburg-etiket as ‘n 13 Jaar Oue Potketelbrandewyn gebotteleer.

Die brandewyn word in slanke 500 ml-bottels verpak met ’n klassieke en elegante etiket. Hierdie eerste botteling het bestaan uit 985 bottels, met brandewyn-fraksies wat onderskeidelik 13, 16 en 17 jaar oud is. Die 2013-produksie was egter heelwat hoër, met ’n eindprodukt van ongeveer 1 200 liter, wat tans in ou Franse eikehoutvate verouder.
Buiten die brandewyn is daar einde verlede jaar ook vyf wyne gebotteleer, naamlik 'n Sauvignon Blanc 2013, Viognier 2013, Cinsaut 2013, Vintage Port 2011 en Muscat de Frontignan Natuurlike Soetwyn 2013. Dit is die eerste keer sedert 2007 dat Elsenburg se wyne gebotteleer word – voorheen is dit slegs in grootmaat verkoop.

Hierdie wyne en brandewyn is tans nie vir die publiek beskikbaar nie en sal uitsluitlik as korporatiewe geskenke van die Wes-Kaapse Departement van Landbou gebruik word. Al die druie is van die Elsenburg- en KrommeRhee-plase afkomstig en volgens Lorraine sal alle botterings vanaf die 2013-oesjaar ook met die Geïntegreerde Produksie van Wyn (IPW)-seël spog, wat aandui dat alle Elsenburg-wyn op 'n omgewingsvriendelike en volhoubare manier vervaardig word.

Die hele proses vind op die perseel plaas en daar is onlangs aansoek gedoen om die brandewyn vanaf die 2014-oesjaar as ‘Landgoed’ te etiketteer. Daar is ook aansoek gedoen om enkelwingerd-status vir die Colombar-blok. Aangesien die wynmaakproses, van wingerdpraktyke tot etikettering, by Elsenburg plaasvind, het finalejaarstudente nou die geleentheid om aktief by die hele proses betrokke te wees en sodoende waardevolle ervaring op te doen. “Ons beplan voorts om elke jaar wyn en brandewyn te botteleer. Die wynstlye en kultivars sal egter van jaar tot jaar verskil en ‘n seleksie van die top be-skikbare wyne insluit,” verduidelik Lorraine.

Met keldertegnoloog Kelly-Marie Jacobs en assistent-wynmaker Sandile Mkhwanazi aan haar sy, is hierdie nuwe, jong span goed op dreef. Dit is juist dié moeite wat in die kelder en kursus ingaan en die ekstra myle wat hierdie passiewelke span bereid is om te loop, wat Elsenburg nou in staat stel om die wyn van sy vernuwing en verbetering te kan drink.
Researchers from RTDS visit Kenya

Researchers from RTDS visit Kenya

Three officials from the Western Cape Department of Agriculture, Programme: Research and Technology Development Services, Dr Carel Muller and Nkululeko Mnisi from the Directorate: Animal Sciences and Dalena Lombard from the Directorate: Plant Sciences, visited Kenya at the end of November 2013. The purpose of the visit was to meet with Kenyan researchers to discuss and compare current research at Elsenburg and to visit small scale dairy farmers. A further purpose of the visit was to explore the possibility of collaborating on crossbreeding trials using the Fleckvieh breed to increase the dairy production of local beef and dairy breeds.

The group visited the headquarters of Kenya Agricultural Research Institute (KARI) in Nairobi to arrange visits to a small scale farmer and dairy processors. Small scale farmers have an average of four to five milked cows in small intensive housing systems together with heifers and calves. Farmers visited, use manual and labour intensive systems to milk and feed the cows, i.e. hand milking and cut and...
carry feeding with zero grazing. Common forage in these regions is Napier grass.

Local extension officers assist the farmers with information not readily available to them, improving production and advice on maintaining herd health. The state veterinarian does required vaccinations for the herd. Technicians from semen companies also advise farmers on breeding and reproduction management. The technicians are always on call to artificially inseminate the cows for the farmers.

A smallholding of Fleckvieh Genetics East Africa Ltd was visited where a purebred Simmental and crossbred Fleckvieh x Holstein cow (bred at the Elsenburg Research Farm and imported from South Africa) were shown.

A pastoralist Masai farmer using Fleckvieh on beef cows was also visited. On the farm, outside Nairobi near the Ngong Hills, a flock of about 300 Dorper sheep is run with crossbred beef and Fleckvieh x beef cows. According to the farmer, crossbreeding with Fleckvieh has increased the milk yield of his cows. This has enabled him to build a new milking parlour in which about 150 cows will be milked by hand. The future plan is to install a milking machine to reduce the labour input.

The research farm of KARI at Naivasha was visited and the demonstration plots of different forage crops were shown. Some of these forage crops could be evaluated at the Outeniqua and Elsenburg Research Farms since the climate is similar, although Naivasha is close to the equator. It is in a semi-arid region with an annual rainfall of about 600 to 650 mm, which mostly occurs from April to November. Minimum and maximum temperatures vary from 12 to 28°C.

Another beef research farm near Naivasha was also visited. A herd of about 500 Sahiwal cattle is available for research. The herd is currently being used to produce bulls to be sold to local pastoralists for upgrading their herds. These beef type cows are kept on the natural pasture. After calving cows are milked by hand in moveable feed stalls. This is only possible for a limited period. The milk is used for household purposes and the surplus sold to the community for a cash income. By crossbreeding the beef type cows with the Fleckvieh, a higher milk yield is possible while not compromising on beef production. The possibility of collaboration on a crossbreeding study was discussed. Closer ties should be set with KARI to investigate the utilisation of forage crops demonstrated at Naivasha.

The dairy processor collects about 8 000 liters per day from a number of dairy farmers within an 8 km radius from the processing plant. Milk is collected in cans and transported to the processing plant. The milk is then pasteurised and processed for bulk handling or put in small sachets for supermarkets.
Awards at Grahamstown congress

Dr Ilse Trautmann, ilset@elsenburg.com

In January three officials and one MSc student from the Programme: Research and Technology Development Services (RTDS), Directorate Plant Sciences attended the Combined Crops, Soils, Horticulture and Weeds Congress 2014 in Grahamstown and delivered papers and posters, of which three were awarded.

The delegation consisted of Dr Johann Strauss, Samuel Laubscher, Jacques Smith and Andries le Roux. The late Vuyo Nteyi would also have been part of this delegation and would have delivered a paper on his completed MTech research project. Vuyo tragically passed away in a car accident in January 2014.

Best poster in Conservation Agriculture:
Andries le Roux. Western Cape Agricultural Research Trust (WCART) student.

“The effect of soil cover on Medicago pasture re-establishment under CA practises in rain fed conditions”, AA le Roux, JA Strauss, PJ Pieterse.

Best presentation overall:
Dr Johann Strauss, Scientist.


Best paper by a student in Soil Science:
Jacques Smith, candidate scientific technician.

2013 proved to be a year full of achievements for the Programme Agricultural Economics. Although one of the smallest and most youthful programmes, its members continue to be recognised by its peers across South Africa and the rest of the continent. Recently Mfusi Mjonono was elected Vice President of the African Farm Management Association (AFMA) and he will be responsible for organising the 2014 AFMA Conference in Cape Town which is scheduled for 16-20 November 2014, a conference not to be missed. Another milestone was reached when the Programme Manager, Bongiswa Matoti, was elected as Vice President of the Agricultural Economics Association of South Africa (AEASA), whilst Louw Pienaar’s paper received upgraded status and subsequently won second prize at the AEA-SA Gala Dinner.

Four economists were also awarded post-graduate degrees: Nomfundo Monaren received an MCom, Musi Mjonono an MPhil, Louw Pienaar an MScAgric whilst Andrew Partridge was awarded an MBusSci degree.
The Western Cape Department of Agriculture (WCDoA) recently launched the third book in their Abundant Harvest series called Growing Talent. This gives testimony to the exceedingly great harvest of 15 young people reaching their potential against or despite desperate odds.
Joyene Isaacs, Head of the WCDoA, underlines the importance of human capital development: “Without the investment in our youth, the (agricultural) sector cannot be sustained in the long term, and the ultimate delivery of human capital development is without a doubt a skilled, professional and committed person working in the agricultural sector.”

Whereas the WCDoA sowed finances, planted dreams and opportunities and nurtured it all with compassionate mentorship, these young people had to toil with hard work and perseverance to create a yield that would not only change their own lives, but also touch the lives of others.

The inspirational stories captured in this book aim to give hope to the boy from Macassar who sees no future for himself, or the girl from Beaufort West who loves animals, but doesn’t know about the many exciting career opportunities in agriculture.

When launching the book, Minister Gerrit van Rensburg, Western Cape MEC for Agriculture and Rural Development, encapsulated it as follows: “I’m excited and proud when I read the stories of the people in this publication. Excited, because agriculture will most certainly flourish in South Africa with people of this calibre. Proud, because my department has been instrumental in facilitating the dreams and ambitions of young people who were struggling against the odds of poverty or lack of opportunities at some point in their lives. Let us all work better together and create the South Africa of our dreams.”

The other two books in the Abundant Harvest series are Successes in Agriculture and Successes in Market Access.

If you would like to receive a copy of this book (or the other two) you can either download it online at www.elsenburg.com or you can request a hard copy by emailing Petro van Rhyn at petrovr@elsenburg.com.

1. Annelin Davids
2. Gareth Williams behind the microscope.
3. Jason Lewis surrounded by the empty chairs of the pupils he teaches.
4. Johannes Links in the orchard where he shows students how to prune.
The Western Cape Department of Agriculture has embarked on the first of its kind project for the development of rural youth, with its main focus on children of farm workers.

The Agricultural Partnership for Rural Youth Development Project aims to facilitate the provisioning of human capital and skills development in order to deliver on the economic and human resources development needs of the agricultural sector in the Western Cape, focussing on the rural youth in disadvantaged communities.

A partnership is underway with various farming industries and principals of primary and high schools in the rural areas offering mathematics and sciences.

The first three scholarships for farm worker children have been awarded to two young females of Tandfontein, who excelled in Grade 7 and 8 respectively. They will now have the opportunity to continue their high school studies at a boarding school that offers mathematics and sciences. The third scholarship was awarded to a 15 year old male of De Doorns completing his high school studies with mathematics and physical science at a Technical High School.

In addition six bursaries have been awarded to unemployed rural youth studying Agricultural Management, Farm Management and Food Science.
The norms and standards for extension came about because of a lack of a National Framework for Extension and Advisory Services in Agriculture. This lack of a framework created confusion around the roles and responsibilities with respect to farming support services.

The Department of Agriculture, Forestry and Fisheries (DAFF) commissioned a plan to address this and in 2005 the norms and standards for Extension and Advisors Services were approved, setting a minimum qualification standard as a four year degree for Agricultural Advisory. It was found that a higher percentage of extension workers did not have the necessary qualifications. Consequently the Extension Revitalisation Programme (ERP) was launched to fill this skills gap.

In line with the ERP, the Department had to do away with Agricultural Community Workers (ACWs) as these posts only required a matric. A simple abolition of posts would have meant that the current ACWs (staff) would have been supernumerary and the Department decided, in view of the implications for the staff, to rather follow a phased out approach. As ACWs gained their four year degrees, the ACW posts would be abolished and the persons would be absorbed into Agricultural Advisor posts. By doing this ACWs who gained the required qualifications would be appropriately absorbed into the Programme.

There were 18 ACWs in service of the Programme Farmer Support and Development. The majority of these officials were appointed with matric and some with diplomas but none of them had a four year qualification. In 2009 (when the ERP was launched) 17 of these ACWs started their studies at various institutions and in the course of the three years that followed, four of them discontinued their studies for various reasons. One Community Worker resigned. Three of the Community Workers will complete their BTech degree in 2014. One is still busy with his Diploma. Seven of the 11 are awaiting their graduation for BTech this year. Megan Bruintjes was awarded the Rainman Landcare Foundation floating trophy for Sustainable Food Security at her graduation in March 2014.

The commitment of these agricultural workers was evidenced by their academic accolades received during their studies, too numerous to mention. The Programme FSD salutes these Community Agricultural Workers who may now improve their career prospects because of their new qualifications and provide an improved extension and advisory service.
Land is an asset. Land is scarce. Land is fragile. Land is irreplaceable! The first three statements reflect the basic relationships of humankind with land: social, economic and environmental, whilst the latter refers to the realistic true state of a natural resource with its inherent quality and scarcity value. Humanity’s association with land springs from the enduring nature of land: It is the basis of food, shelter and livelihood.

Land is thus perhaps nature and mankind’s greatest asset with the highest value. The Department of Agriculture hosts a comprehensive database on agricultural land values since 2003 which provides interesting statistics to be scrutinised by markers, researchers and policy makers. The database houses all farmland transactions and differentiates between major towns as well as between farm sizes as economies of scale do impact on land prices.

Graph 1 translates the percentage of agricultural land that was transacted since 2003 indicating an average of close to five percent transacted annually. This is of value for policymakers who should acknowledge that agricultural land do come available in the market place should they would like to acquire it for example for redistributing land to designated target groups. It is also interesting to take note that on average some 827 farm transactions take place annually in the Western Cape with 2013 realising 752 market transactions. These transactions
reached a peak in 2009 when 1 150 transactions took place whilst hitting a low in 2011 when only 544 transactions took place.

Table 1 shows the area transacted in each district municipality as well as the average farm size per transaction with not surprisingly the Central Karoo District Municipality showing the greater farm size. Averages however do not tell the real story and it must be borne in mind that there is rather a wide diversity of farm sizes that were successfully sold within the market place.

With the above in mind the database was developed in such a way that farms in each area were uniquely categorised into three groups, differentiating between small, medium and large sized farms and it was interesting to note the differences in R/ha paid for these land groups.

It is always advisable that casual readers should ensure that the averages depicted in databases such as these should at the very least be the result of a minimum of three farm transactions in a specific category within a specific area, and then even so, it should be used advisedly as a guideline of what the land value is or was. The trends over years provide a valuable tool to track price movements and the presence of outliers within certain years should be acknowledged and taken into consideration.

Agriculturalists who are interested in calculating the value of farmland are strongly advised to get the expertise of accredited land valuers who will scientifically determine the value of their agricultural land by taking into consideration the value and size of infrastructure, size and quality (potential) of arable and non-arable land etc., as well as the transaction value of farmland sold recently in their specific areas.

Finally, the Department is willing to share the data with any interested parties who are interested in the values of land transacted within the last decade in the Western Cape.

Table 1: Total and average agricultural land area transacted per district municipality in 2013

<table>
<thead>
<tr>
<th>District Municipality</th>
<th>Total Area (ha)</th>
<th>Average Farm size (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTRAL KAROO</td>
<td>133 252</td>
<td>2 050</td>
</tr>
<tr>
<td>OVERBERG</td>
<td>22 051</td>
<td>283</td>
</tr>
<tr>
<td>EDEN</td>
<td>67 163</td>
<td>279</td>
</tr>
<tr>
<td>CAPE METROPOLE</td>
<td>726</td>
<td>56</td>
</tr>
<tr>
<td>CAPE WINELANDS</td>
<td>62 559</td>
<td>381</td>
</tr>
<tr>
<td>WEST COAST</td>
<td>85 285</td>
<td>596</td>
</tr>
</tbody>
</table>

Graph 1: Percentage of agricultural land transacted annually (Western Cape).
Aggregated agricultural land values: Central Karoo (R/ha)

Aggregated agricultural land values: Overberg (R/ha)

Aggregated agricultural land values: Eden (R/ha)
Aggregated agricultural land values: Cape Metropole (R/ha)

Cape Metropole Western Cape

R 400,000
R 450,000
R 350,000
R 200,000
R 150,000
R 250,000
R 300,000
R 100,000
R 50,000
R 0


Aggregated agricultural land values: Cape Winelands (R/ha)

Cape Winelands Western Cape

R 30,000
R 35,000
R 25,000
R 15,000
R 20,000
R 10,000
R 5,000
R 0


Aggregated agricultural land values: West Coast (R/ha)

West Coast Western Cape

R 30,000
R 35,000
R 25,000
R 15,000
R 20,000
R 10,000
R 5,000
R 0


Cape Metropole
Western Cape
Cape Winelands
Western Cape
West Coast
Western Cape
Die wildbedryf breek deur die R1 biljoen-kerf

Die Suid-Afrikaanse wildbedryf het verlede jaar weer sy spiere gebult en bewys dit is 'n landboubedryf wat waarlik sy plek binne die kommersiële landbousektor volstaan. Die bruto omset van wildveilings in 2013 het vir die eerste keer in die geskiedenis van die wildbedryf die R1 biljoen-kerf verbygesteek – 'n groei van 9,9% bo die omset van 2012!

Verskeie rekordpryse is behaal vir diere, soos die R40 miljoen wat betaal is vir 'n buffelbul, wat vir R40 miljoen verkope is.

Die Wildprysindeks toon dan ook 'n nominale 18,1% groei in wildpryse, maar reële prys van alle wildspesies, die soge-naamde “common” of algemene spesies, het stabiele vlakke gehandhaaf.

Wat dieregetalle betref, is daar in 2013 24,4% meer diere op veiling verhandel en is minstens 22 646 diere suksesvol van
die hand gesit – ’n nuwe rekord vir die bedryf! Dit is meer as ’n duisend diere meer as die 21 101 wat in 2004 (die vorige rekordjaar) verkoop is.

Wat baie interessant was, is die effens oplewing wat in die witrenosterbedryf ingetree het. Dit is vermoedelik die gevolg van die nuus dat die verbod op renosterhoringverkope moontlik binnekort opgehef gaan word.

In reaksie op ’n navraag van ’n akademiese instelling is daar ook bepaal dat tussen 7 en 9% van alle diere verkoop kleurvariante is, wat dui daarop dat daar ’n relatiewe sterk vraag daarna is. Die vrye mark skep dus duidelik ’n finansiële insentief vir produente om hierdie kategorie diere te produseer.

Almal wat betrokke is by wildveilings word ernstig aangemoedig om hul veilingsresultate aan die Departement van Landbou te stuur sodat daar tred gehou kan word met die tendense en prestasies van die wildbedryf.

Belangstellendes wat meer wil weet oor die data kan vir Riaan Nowers e-pos by riaann@elsenburg.com.
Almal weet hoe moeilik dit is om aan te pas by 'n nuwe idee en om skielik jou denkwyse te moet verander om 'n ander stel reëls as waaraan jy gewoond is, te moet toepas. Net so moeilik was dit in die afgelope 10 jaar of meer vir twee organisasies, elkeen met sy eie riglyne en standaarde, om hul individuele opinies en riglyneopsy te skui½ en 'n gesamentlike standaard na te streef.

Vir die afgelope drie jaar hou die Weskaaplandse Dorperklub, onder beskerming van die Dorpetersergenootskap van SA, hul veiling op Vredendal. In dié tyd was dit vir die organisasie belangrik dat die personeel van die Veeartsenydienste-afdeling van die Departement Landbou op Vredendal betrokke moet wees by die projek. Uiteenlopende riglyne het egter verhoed dat personeel van die twee organisasies kon saamwerk.

Vir die personeel van Vredendal Veeartsenydienste was dit belangrik dat voornemende kopers beskerm word deur te sorg dat die ramme wat op die veiling verkoop verseker sukses.
word aan die hoogste moontlike dierge- sondheidstandaarde voldoen. Lede van die twee organisasie het op Vredendal bymekaargekom en onder leiding van die Vredendal-staatsveearts, dr. R.F. Hugo, is ’n dokument en kuddeprogram opgestel met alle veeartsenykundige vereistes waaraan elke ram moes voldoen voordat die dier op ’n veiling beskikbaar gestel kan word.

Dorpertelers van Vanrhynsdorp, Bitter- fontein, Loeriesfontein, Clanwilliam, Wil- liston, Loxton, Lutzville, Calvina en Prieska het in April 2013 hul ramme na die plaas Grootdrif in die Vanrhynsdorp-distrik ge- bring. Voor die ramme klinies ondersoek is vir peestersiekte en Epididymitis (bybal- ontsteking), moes die telers bewys lewer dat die ramkuddes op die plase van afkoms vry is van die hoog aansteeklike ramsiekte Brucella ovis. ’n Sertifikaat, uitgereik deur die Dorpertelersgenootskap van SA, tesa- me met ’n negatiewe bloedtoets vir B. ovis, was die vereiste. Geen ramme met sigbare peestersiekteletsels of Epididymitis is toe-
Indien peestersiekte by een van 'n eienaar se ramme gekry is, is geen ramme van daardie plaas tot die projek toegelaat nie. Altesaam 173 ramme is toegelaat tot die projek en Brucella ovis-bloedmonsters is weer by die nuwe ramkudde geneem. Alle ramme kon daarna vir vyf maande in natuurlike veldtoestande groei, waarna hulle vir 60 dae voor die veiling na 'n voerkraal geneem is vir afronding.

Elke maand is alle ramme deur personeel van Veeartsenydienste gemonitor vir kliniese tekens van peestersiekte en Epididymitis, tesame met 'n maandelikse weegsessie vir die samestelling van 'n indeks van daaglikse gewigtoename. Die dieregesondheidstegnici het die ramme se hoewe geknip, horings gesaag, absesse gedreineer, inentings gedoen en enige basiese hulp verleen om te sorg dat elke ram die beste kans staan om dit tot by die keuring te maak voor die veiling.
'n Kenmerk van 2013 se veldramprojek wat uitstaan, was dat alle ramme se semen mikroskopies geëvalueer is vir tekens van inwendige geslagsorgaaninfeksies, asook 'n finale Brucella ovis-bloedtoets.

Op 20 November 2013 is 'n baie suksesvolle veiling by die Vredendal-skouterrein gehou en ongeveer 120 gekeurde ramme is by die geleentheid opgeveil. Die doel van die projek, naamlik om 'n getoetste, gesonde produk aan die voornemende koper beskikbaar te stel, is bereik en die personeel van die Departement van Landbou: Veeartsendienste is weer genader om die projekreëls en -standaarde op te stel vir 2014 se veldramprojek op Vanrhynsdorp.

Nie net het hierdie nuwe standaard wat op die veldramprojek toegepas is positiewe kritiek opgelewer nie, maar dit het ook bewys dat meer gekonsentreer moet word op die veeartsenykundige aspek van die kommersiële en stoetveebedryf.
The fluff about ostriches:
unravelling the mystery of the male courtship display

Maud Bonato, maudb@elsenburg.com

Photos by Quintus Strauss
Although ostriches have been domesticated since the 1800’s, little is known about their mating system. They are sexually dimorphic, with males having a black and white plumage, pink-coloured shins and bill, and females having a dull-brown plumage. In the wild they are promiscuous, with males and females mating with multiple partners.

A particularity of farmed ostrich chicks is that they are fast-growing. However, chicks of the same age often vary greatly in size. With mortalities of between 10 and 50% during the first three months after hatching, raising chicks that will survive beyond this sensitive period is one of the greatest challenges faced by ostrich farmers.

Females of many birds prefer to mate with males showing off elaborate ornamentations (i.e. colourful feathers or long tails), which have been demonstrated to reflect male quality, and in particular genes for improved immune function to be transmitted to offspring. Only males that are in prime condition would be able to maintain both a strong immune response as well as ornamentations.

As part of a multi-national collaboration between the University of Stellenbosch, Exeter University (UK), Lund University (Sweden) and the Western Cape Department of Agriculture, we investigated relationships between ostrich male colouration, immune responses of parents and chicks, and chick growth rates.

For this study 38 South African Black ostriches were divided into two breeding flocks on the Oudtshoorn Research Farm. All parents and their chicks were genotyped for parentage analysis.

We found that the colouration of the black feathers, white feathers and necks of males (all traits involved in the court-
They are sexually dimorphic, with males having a black and white plumage, pink-coloured shins and bill, and females having a dull-brown plumage. Ship display) was related to egg weight, with females laying heavier eggs when mated with males with brighter coloured feathers. We also observed that male ostriches with brighter feathers, bills, necks and legs had an improved immune resistance relative to duller males.

Chick immune responses were influenced by the father’s white feather colouration, as well as immune responses of both parents, indicating that immune resistance might be heritable. Chick growth rates, on the other hand, were related to both the colouration of the father’s white feathers and bill.

These results could partially explain size variation in cohorts of chicks and high chick mortality rates, as chicks with a prime immune system could invest more energy into faster growth. The crucial role of feathers in the ostrich mating system is also highlighted, as females mating with males with brighter white feathers are likely to have offspring with a superior genetic heritage, including a stronger immune system.
Announcement:
The Oudtshoorn Research Farm will be celebrating its 50th anniversary on 12 August 2014.
Oudtshoorn Research Farm, the oldest ostrich research farm in the world, will be celebrating its 50th anniversary on the 12th of August 2014. If you would like to take part in the celebrations kindly email Minnie Abrahams on minniea@elsenburg.com for a formal invitation.
Volstruisvere is op die oomblik ’n belangrike bron van inkomste vir volstruisproduente. Deur te verseker dat die gehalte van die vere goed is, kan die maksimum inkomste daarvoor verkry word. Besmetting met veerluise sal die gehalte van die vere verswak, aangesien die veerluise op die veerdons voed en die vere ’n versleten voorkoms gee. Dit is dus belangrik om volstruise gereeld na te gaan om besmetting vroegtydig te identifiseer en skade aan die vere te verhoed.

Navorsing het getoon veerluise word oorgedra deur fisieke kontak tussen voëls. Besmette volstruis se moet dus apart gehou word van onbesmette voëls. Dit lyk ook asof die vlakke van besmetting in die somermaande die hoogste is. Hoewel die luise groot genoeg is om maklik met die
oog gesien te word, kruip hulle vernuftig tussen die veerdons weg. Hulle beweeg ook vinnig weg van lig deur agter die vere in te beweeg. Daar is gevind veerluise kan die maklieste op die wit vlerkvere gesien word, maar besmetting kan ook op die lyfvere vystel word deur veral die vere naby die nek goed te deursoek. Die luise vertoon gryserig of bruinerig, terwyl jong luise roomkleurig tot deurskynend is. Die witterige luiseiers kan ook langs die skatte van die vere gesien word.

Veerluise voltooi hul hele lewensiklus op die volstruis en is daarom maklik om te beheer. Die meeste van die dipmiddels wat geregistreer is vir volstruise beheer die veerluise baie doeltreffend.

Kuikens kan reeds so vroeg as op vier of vyf maande teen veerluise behandeld word om beskadiging van vere te beperk. In geval van erge besmetting moet ‘n opvolgbehandeling twee weke later gedoen word om luiseiers wat dan eers uitbroei te dood. Vier tot ses weke nadat die vere geoes is, nadat die veergate herstel het, word die volstruiis weer behandeld teen veer- en bosluise. ‘n Dipmiddel waarmee die vere terselfdertyd gewas word, sal help om die vere skoon te hou en slytiasie te vermindert. ‘n Opgietmiddel kan egter ook gebruik word. Die volstrui is moet ses weke later, of drie maande ná pluk, weer behandeld word. Die middel wat gebruik word, kan afgewissel word om te keer dat ‘n weerstand teen ‘n spesifieke aktiewe bestanddeel opbou.

Waar die daging met ander parasiete, soos bosluise, egter groot is, moet die volstruise minstens maandeliks behandel word om velskade ook te voorkom, en selfs meer gereeld afhangend van die vlak van daging of besmetting.

Produkte wat geregistreer is vir gebruik by volstruise is: Bayticol, Bodygard, Econline, Coopers Redline, Drastic Deadline, Tickenda en Maxipour (met flumetrien as aktiewe bestanddeel), asook Decatix 3, Delete X5 en Deltab (met deltametrien as aktiewe bestanddeel) en Taktic (met amitrac as aktiewe bestanddeel).
Trade into Africa: Perspective on South African agricultural trade with Africa (Part 1)
L Pienaar¹ & A Partridge¹

Dr DP Troskie
Trade into Africa: Perspective on South African agricultural trade with Africa (Part 1).

L Pienaar & A Partridge

Introduction

A renewed emphasis on Africa has emerged in recent years in relation to trade and investment opportunities within the continent. Various African countries have recorded exceptional economic growth rates in the last decade which are expected to continue in the midst of sluggish growth elsewhere in the world (WTO, 2013). Africa has also been identified in various discussions within the South African government, especially with regards to South African agricultural exports into the region. In her 2013 Budget Vote Speech, Tina Joemat-Pettersson listed increased intra-Africa trade as a strategic objective of the National Department of Agriculture, Forestry and Fisheries (DAFF, 2013). This paper will provide an introduction to the perspective on South African agricultural trade with Africa based on the departmental research undertaken in the first quarter of 2013 on the Africa Agenda (Partridge & Pienaar, 2013).

Why Africa?

The first question that needs answering relates to the reasons why Africa has become increasingly important for trade and investment in recent years. This paper will highlight some of the main reasons for this phenomenon and starts off by looking at Figure 1. Here the general increases in trade and investment are indicated with the total imports of all goods into Africa and the Foreign Direct Investment (FDI) inflows into Africa from 1996 to 2012. In this period total imports in value have grown from approximately USD 127 billion to more than USD 590 billion in 2011. According to the WTO’s (2013) World Trade Report various economic factors will affect trade patterns in Africa. These include demography, investment, technology, energy, transportation cost and the role of institutions. Africa is set to continue to be a major player in global trade with rising income levels, high population levels, increased public investment in roads, ports and other transport infrastructure (WESGRO, 2013).

Figure 1: Total Imports and Foreign Direct Investment into Africa.

FDI has increased from less than USD 6 billion to more than USD 50 billion in the past 20 years (see Figure 1). These trends suggest a massive improvement of African countries to facilitate trade and business transactions with the world. This increased investment into Africa is typically a result of great improvements in the business environment. For example, in 2004 it took 10.8 days to start a new busi-
ness and 113.5 days to register property in Africa, on average. In 2011 this declined remarkably to 8.4 and 64 days respectively (WESGRO, 2013).

Many African countries have consistently obtained high economic growth rates above the world average. Figure 2 sheds more light on this with an aggregate breakdown of GDP growth rates per region. Sub-Saharan Africa achieved growth rates of 5.6% on average between 2003 and 2013. This was much higher than the world average (3.8%) and that of the advanced economies (1.6%). The substantial drop in growth rates in 2007 is attributed to the global economic recession; Africa still outperformed the world in these economic conditions. The general expectation is that these higher GDP growth rates will continue in a similar fashion going forward (OECD, 2013). Furthermore, it is also evident from Figure 2 that the global recession affected the advanced economies more heavily in comparison to developing countries. With these growing economies in Africa, opportunities will continue to develop for trade, investment and business opportunities.

Figure 2: GDP growth rates per region from 2003-2015.

(Source: Global Finance, 2013)

The final reason why Africa is important relates to the fact that the African population is growing at an increasing rate and will continue to grow as a percentage of world population as indicated in Figure 3. It is expected that the African population will reach approximately 25% of the world population by 2050 (UNCTAD, 2013). Furthermore, the urbanisation rate within Africa is expected to increase, albeit at a decreasing rate, with more than 56% residing in urban areas by 2050. These trends in population aggregates suggest that there will be more people and more of them will be living in cities in the future. This, together with the improved trade facilitation, higher FDI and relatively high economic growth rates, suggests that Africa will develop a demand for more food, infrastructure, higher agricultural productivity, political stability and management of resources (Cohen, 2006). These factors will all lead to greater emphasis of both private and public sector in terms of trade and investment opportunities into the African continent. Finally, the impacts of the 2007 recession were more pronounced for developed economies relative to the developing economies of Africa and Asia, indicative of the need for South Africa to diversify agricultural exports markets in the future (see Figure 2).

South African agricultural trade with Africa

Traditionally, South Africa is very dependent on the European Union (EU) for its agricultural exports with approximately 30% of total agricultural exports going to EU countries in 2012 (ITC, 2013). However, in the last decade total agricultural exports to Africa have increased substantially in value from USD 607 million in 1996 to USD 2 110 million in 2012. From Figure 4 it should also be noted that South Africa continues to have a positive

Agricultural exports are aggregated according to the ITC (2013) agricultural product group. These include the following products at the 2-digit level: 01, 02, 04, 07-24, 51-53.
net trade balance, indicative of the fact that South African exports exceeds imports from African countries.

**Figure 4: South African trade in agricultural products from 1996 to 2012.**

The top ten agricultural exported products in value are given in Table 1 at the 4-digit Harmonised System (HS) codes. Sugar exports were the highest with USD 148 million in value, followed by food preparations and soya-bean oils making up the top three for 2012, apples and pears, in fourth, yielded exports of USD 124 million in value. According to ITC (2013), 34% of South African apples are exported to African countries. Other products included in the top ten were fruit and vegetable juices, wine and wheat. In general, apart from sugar and wine, all of the top ten products had high growth rates of above 10% for the period 2008-2012.

The top ten African destinations for South African agricultural exports are given in Table 2. Zimbabwe, Mozambique and Angola were in the top three with trade in value of USD 601, 348 and 281 million respectively. It is worth mentioning the high growth performance with the majority of these countries included in the top ten importers of South African agricultural products. Ghana (19%) and Angola (10%) had the highest average growth rates from 2008 to 2012, while only Zambia and Kenya had negative import growth in this period.

**Western Cape agricultural exports**

Looking at provincial trade statistics, the main agricultural exported products for the Western Cape to Africa are given in Table 3. Apples and pears were the main exported product with a value of USD 86 million in 2012 and a steady growth rate of 24% for the period between 2008 and 2012. Other prominent products from the Western Cape include cigars, fruit & veg juices, citrus, potatoes and wine, while all of the listed top ten had positive growth rates over this five year period.

**Table 1: Top 10 South African agricultural exported products to Africa**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Exported products</th>
<th>Value in USD millions 2012</th>
<th>% Growth, 2008-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1701: Sugar</td>
<td>147.53</td>
<td>1.94</td>
</tr>
<tr>
<td>2</td>
<td>H2106: Food prep</td>
<td>132.15</td>
<td>13.26</td>
</tr>
<tr>
<td>3</td>
<td>H1507: Soya-bean oils</td>
<td>124.52</td>
<td>107.67</td>
</tr>
<tr>
<td>4</td>
<td>H0808: Apples &amp; pears</td>
<td>116.18</td>
<td>15.01</td>
</tr>
<tr>
<td>5</td>
<td>H0808: Apples &amp; pears</td>
<td>87.46</td>
<td>10.92</td>
</tr>
<tr>
<td>6</td>
<td>H2402: Cigars &amp; cigarettes</td>
<td>86.77</td>
<td>16.03</td>
</tr>
<tr>
<td>7</td>
<td>H1512: Sunflower seed oil</td>
<td>77.30</td>
<td>25.80</td>
</tr>
<tr>
<td>8</td>
<td>H2204: Wine of fresh grapes</td>
<td>67.79</td>
<td>5.05</td>
</tr>
<tr>
<td>9</td>
<td>H2207: Ethyl alcohol</td>
<td>66.43</td>
<td>11.37</td>
</tr>
<tr>
<td>10</td>
<td>H1101: Wheat</td>
<td>55.19</td>
<td>42.23</td>
</tr>
</tbody>
</table>

(Source: ITC, 2013)

1 Provincial trade statistics are sourced from SARS. The import and export statistics from SARS are tied to postal codes. These are the postal codes of the head office or agent that report importing and exporting activity. Thus, a product can be listed as exported by the Western Cape when in actual fact it might have been produced in another province.
### Table 2: Top ten destinations for South African agricultural exports

<table>
<thead>
<tr>
<th>Rank</th>
<th>Importing Countries</th>
<th>Value in USD millions 2012</th>
<th>% Growth, 2008-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zimbabwe</td>
<td>600.90</td>
<td>5.91</td>
</tr>
<tr>
<td>2</td>
<td>Mozambique</td>
<td>348.17</td>
<td>6.32</td>
</tr>
<tr>
<td>3</td>
<td>Angola</td>
<td>280.60</td>
<td>9.50</td>
</tr>
<tr>
<td>4</td>
<td>Zambia</td>
<td>181.88</td>
<td>-3.53</td>
</tr>
<tr>
<td>5</td>
<td>Ghana</td>
<td>84.36</td>
<td>19.25</td>
</tr>
<tr>
<td>6</td>
<td>Nigeria</td>
<td>78.53</td>
<td>8.96</td>
</tr>
<tr>
<td>7</td>
<td>Mauritius</td>
<td>68.25</td>
<td>2.72</td>
</tr>
<tr>
<td>8</td>
<td>Kenya</td>
<td>55.34</td>
<td>-14.11</td>
</tr>
<tr>
<td>9</td>
<td>DRC</td>
<td>53.90</td>
<td>6.07</td>
</tr>
<tr>
<td>10</td>
<td>Malawi</td>
<td>46.74</td>
<td>5.36</td>
</tr>
</tbody>
</table>

(Source: ITC, 2013)

### Table 3: Top 10 Western Cape agricultural exports to Africa

<table>
<thead>
<tr>
<th>Rank</th>
<th>Exported Products</th>
<th>Value in USD millions 2012</th>
<th>% Growth, 2008-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H0808: Apples &amp; pears</td>
<td>86.18</td>
<td>24.36</td>
</tr>
<tr>
<td>2</td>
<td>H2402: Cigars &amp; cigarettes</td>
<td>80.42</td>
<td>11.49</td>
</tr>
<tr>
<td>3</td>
<td>H2009: Fruit and veg juices</td>
<td>16.02</td>
<td>15.97</td>
</tr>
<tr>
<td>4</td>
<td>H0805: Citrus fruit</td>
<td>14.57</td>
<td>6.79</td>
</tr>
<tr>
<td>5</td>
<td>H2208: Liqueur &amp; spirits</td>
<td>12.79</td>
<td>3.21</td>
</tr>
<tr>
<td>6</td>
<td>H0701: Potatoes</td>
<td>11.85</td>
<td>14.01</td>
</tr>
<tr>
<td>7</td>
<td>H2204: Grape wines</td>
<td>10.88</td>
<td>1.40</td>
</tr>
<tr>
<td>8</td>
<td>H0703: Onions &amp; shallots &amp; garlic &amp; leeks</td>
<td>10.65</td>
<td>28.86</td>
</tr>
<tr>
<td>9</td>
<td>H2106: Food prep</td>
<td>10.48</td>
<td>27.47</td>
</tr>
<tr>
<td>10</td>
<td>H1904: Cereal food (cooked grain not maize)</td>
<td>10.28</td>
<td>34.54</td>
</tr>
</tbody>
</table>

(Source: Quantec, 2013)

### Table 4: Top 10 Export destinations for Western Cape agricultural exports

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country Exports</th>
<th>Value in USD millions 2012</th>
<th>% Growth, 2008-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Angola</td>
<td>103.58</td>
<td>12.46</td>
</tr>
<tr>
<td>2</td>
<td>Zimbabwe</td>
<td>29.34</td>
<td>14.60</td>
</tr>
<tr>
<td>3</td>
<td>Mozambique</td>
<td>28.41</td>
<td>-2.48</td>
</tr>
<tr>
<td>4</td>
<td>Zambia</td>
<td>26.93</td>
<td>10.80</td>
</tr>
<tr>
<td>5</td>
<td>Cameroon</td>
<td>26.74</td>
<td>22.05</td>
</tr>
<tr>
<td>6</td>
<td>Nigeria</td>
<td>23.67</td>
<td>27.42</td>
</tr>
<tr>
<td>7</td>
<td>Benin</td>
<td>19.60</td>
<td>8.60</td>
</tr>
<tr>
<td>8</td>
<td>Mauritius</td>
<td>17.18</td>
<td>5.10</td>
</tr>
<tr>
<td>9</td>
<td>Ghana</td>
<td>16.30</td>
<td>16.98</td>
</tr>
<tr>
<td>10</td>
<td>Kenya</td>
<td>13.07</td>
<td>26.41</td>
</tr>
</tbody>
</table>

(Source: Quantec, 2013)
The main importers of Western Cape agricultural products are listed in Table 4. Here Angola, Zimbabwe and Mozambique make out the top three, followed by Zambia, Cameroon and Nigeria. Angola imported agricultural products worth USD 104 million from the Western Cape, which was considerably higher compared to the other importing countries. Here the distance and sea access to the Angolan market are possible reasons for this phenomenon. Again, apart from Mozambique (-2.5%), all of the main importers of Western Cape agricultural products had positive growth rates between 2008 and 2012. These are therefore growing markets for products produced in South Africa, and more particularly, the Western Cape.

Conclusion
This paper provided a perspective on the importance of Africa for trade and investment in South African agricultural exports. Four main reasons for the renewed emphasis on Africa have been highlighted. Firstly, African imports since 1996 have increased substantially, indicative of an increased capacity of African countries to absorb and facilitate higher volumes of traded products. Secondly, direct investment into Africa has increased which suggests improved business and investment environments in many African countries. Thirdly, there has been continued higher economic growth performance in many African countries. Lastly, the impact of higher rural-urban migration and increasing population numbers will ensure demand for more agricultural products in the future.

In terms of South African agricultural trade with Africa, Zimbabwe, Mozambique and Angola were the top three destination markets, while sugar, food preparations and soya-bean oils were the main products exported. The main Western Cape agricultural exported products were apples & pears, cigars and fruit & vegetable juices, while the main importing countries were Angola, Zimbabwe and Mozambique. In Part 2 of this paper the results of the Market Attractiveness Index (MAI) for specific products will be discussed. The product emphasis will be on selected products important to the Western Cape agricultural sector and will highlight possible attractive market opportunities for South African agricultural exports.

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Dr DP Troskie, dirkt@elsenburg.com

Introduction
Although we, as South Africans, disagree on a number of issues, we generally do agree on a number of national policy outcomes to be achieved: We need to increase the number of sustainable jobs, grow the economy and get rid of inequality. Yet, we do disagree (often quite vehemently) on the most appropriate method through which these outcomes should be accomplished. On the one hand organisations such as the Free Market Foundation promote a “government keep out” approach (where everything is left to private business) and the other side of the field is occupied by those promoting a principal role for government. In other words, one of the disagreements is between a passive or active role for government.

Sometimes the truth can be found on the middle ground. In its 2009 Business Plan for the Implementation of the Comprehensive Agricultural Support Programme (CASP), the Western Cape Department of Agriculture (WCDoA) promoted the development of partnerships between government and the private sector. By creating a partnership each could bring their strengths to bear on a particular problem; the so-called “Commodity Approach” (WCDoA, 2009). The purpose of this paper is to explore one of these partnerships (with the Deciduous Fruit Industry) and to evaluate its impact on the achievement of government policy outcomes.

The Boompie Project
One element of the partnership between the WCDoA and the Deciduous Fruit Industry soon became known as the Boompie Project. The purpose of this project was to enhance the livelihoods of previously disadvantaged fruit farmers (both new and established) by expanding their area under production and linking them to markets. As the agricultural value chains in the Western Cape can compete with the best in the world (and indeed do), it makes no sense to create a parallel system for previously disadvantaged fruit farmers, but rather to facilitate their participation in existing structures. To this end these farmers need to produce fruit of the right quality for which the correct cultivar and technical efficiency is of the utmost importance. For this reason the Industry took the responsibility to provide the plant material (boompies) and technical advice whilst the Department carried the cost associated with land preparation, irrigation as well as drainage and trellising (where appropriate). In this way an equal funding partnership was created. Furthermore, the viability of all projects was evaluated by a Commodity Project Evaluation Committee (CPAC) in which Industry and Government have equal representation.

In this manner almost 313 hectares of fruit trees were established on the land of previously disadvantaged fruit farmers in the Western Cape over the period 2009 to 2012 (Table 1). In the outer years approximately 50 hectares were established while in the middle close to 100 hectares were planted per year. Figure 1 reveals that the fruit types established through this project were an even mix of apples, pears, plums and peaches/nectarines or a mix of these fruit types. Although the project covered the whole province, it was concentrated in the Cape Winelands District, which is the heartland of the Western Cape Deciduous Fruit Industry.
According to the Labour Model of the Bureau for Food and Agricultural Policy, the labour multiplier for deciduous fruit ranges (depending on the fruit type) between 1.4 to 1.6 jobs being created for every hectare under fruit production. In this multiplier both permanent jobs as well as the permanent equivalent of seasonal jobs are included. If the hectares planted are weighted according to the fruit type established, it is calculated that a total of 469 long-term and sustainable jobs were created over the four years this initiative was active (Table 1). It is important to make one comment on the sustainability of these jobs. Whereas the often-used term “employment opportuni-

Table 1: Summary of key features of the Boompie Project.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>YEAR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ha established</td>
<td>52.9</td>
<td>108.2</td>
</tr>
<tr>
<td>Jobs created</td>
<td>79</td>
<td>162</td>
</tr>
<tr>
<td>Value of investment (R m)</td>
<td>R 9,44</td>
<td>R 19,33</td>
</tr>
<tr>
<td>Value of investment (R m)</td>
<td>R 2,03</td>
<td>R 5,32</td>
</tr>
<tr>
<td>CASP Spending (R m)</td>
<td>R 1,50</td>
<td>R 3,83</td>
</tr>
<tr>
<td>Total support (R m)</td>
<td>R 3,53</td>
<td>R 9,15</td>
</tr>
<tr>
<td>CASP Cost per ha (R)</td>
<td>R 28 371</td>
<td>R 35 427</td>
</tr>
<tr>
<td>CASP Cost of a job (R)</td>
<td>R 18 914</td>
<td>R 23 618</td>
</tr>
</tbody>
</table>

Source: Compiled from BFAP (2013), Hortgro (2013) and WCDoA (2013a).

According to the Labour Model of the Bureau for Food and Agricultural Policy, the labour multiplier for deciduous fruit ranges (depending on the fruit type) between 1.4 to 1.6 jobs being created for every hectare under fruit production. In this multiplier both permanent jobs as well as the permanent equivalent of seasonal jobs are included. If the hectares planted are weighted according to the fruit type established, it is calculated that a total of 469 long-term and sustainable jobs were created over the four years this initiative was active (Table 1). It is important to make one comment on the sustainability of these jobs. Whereas the often-used term "employment opportuni-

Figure 1: Fruit trees established as part of the collaborative Boompie Project.

Source: Generated by WCDoA (2013b)
ties” usually refers to a job which ceases to exist the moment government support is withdrawn, the jobs created through the Boompie Project will continue to exist long after the project has ceased to function. Indeed, as the replacement cost of an orchard is included in cost calculations, these jobs will persist even after the orchard has reached its normal lifespan.

The industry average for the establishment cost of a hectare of fruit trees varies from R120 406 in the case of nectarines/peaches to R204 607 for apples (Hortgro 2012). By taking the type of fruit planted as part of the Boompie Project into account, it is calculated that the average cost of establishing one hectare of fruit trees was R178 622 (see Table 2).

From an economic perspective it can be argued that the ownership of a farm means nothing more than having the right to earn an income stream from the land. In the case of an orchard no income is generated in the first year, but a huge establishment cost is incurred (see Table 2). Depending on the type of fruit some income can already be generated in year 3 (apples, peaches and apricots), but full bearing orchards are sometimes only expected from year 5 to 7 (pears in the latter case). Although this situation makes it difficult to compare projects, this problem can be circumvented by calculating the net present value of the cash flow stream. Accepting that an orchard will have a 30 year lifecycle and using industry benchmarks (Hortgro, 2012), a deflator of 4% to accommodate the temporal nature of money as well as the weightings mentioned above, the net present value (NPV) of the cash flow stream generated by one hectare of fruit planted in the Boompie Project is R2,494 million. This can be translated into an annual income figure of R83 135 per hectare.

Returning to the information in Table 1, it was subsequently calculated that the total value of investment over the four years was R55,84 million. Of this amount the WCDoA invested R10,66 million from its Comprehensive Agricultural Support Programme (CASP) facility and Hortgro (the industry representative body) contributed R13,14 million with the result that the total value of support amounted to roughly half of the total investment (R23,80 million). The balance of the investment came from own sources and constituted *inter alia* “sweat capital” and investment by equity partners. It follows that government investment in each hectare of fruit trees was, on average, R34 104 and the cost of creating one job amounted to R22 736. The result is that the once-off CASP investment of R34 104 per hectare generated an annual recurring income stream of R83 135 per hectare for the beneficiaries participating in the Boompie Project.

### Table 2: The cost of establishing a hectare of deciduous fruit trees in the Western Cape.

<table>
<thead>
<tr>
<th>FRUIT TYPE</th>
<th>ESTABLISHMENT COST</th>
<th>BOOMPIE PROJECT</th>
<th>WEIGHTED COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nectarines</td>
<td>R 120 406</td>
<td>5.6%</td>
<td>R 6 748</td>
</tr>
<tr>
<td>Peaches</td>
<td>R 120 406</td>
<td>17.3%</td>
<td>R 20 835</td>
</tr>
<tr>
<td>Pears</td>
<td>R 199 540</td>
<td>36.9%</td>
<td>R 73 569</td>
</tr>
<tr>
<td>Plums</td>
<td>R 58 819</td>
<td>10.5%</td>
<td>R 16 745</td>
</tr>
<tr>
<td>Apples</td>
<td>R 204 607</td>
<td>29.7%</td>
<td>R 60 725</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100.0%</strong></td>
<td><strong>R 178 622</strong></td>
</tr>
</tbody>
</table>

Source: Compiled from BFAP (2013), Hortgro (2013) and WCDoA (2013a).

*The Comprehensive Agricultural Support Programme (CASP) is a conditional grant annually made available to provinces by the Department of Agriculture, Forestry and Fisheries (DAFF). Before the funds can be transferred, provinces need to indicate to the satisfaction of DAFF how the funds will be used and managed.*
Comparison to industry benchmarks

However, is this money well spent or was it possible that government could have received a better return on its investment in another way? As government is entrusted with scarce resources, provided by taxpayers to generate public goods, this is a very relevant question. The only way of shedding light on this reservation is by comparison with industry benchmarks.

The first comparison of relevance is the most obvious; a comparison with benchmarks in the Deciduous Fruit Industry. It was already argued that the average establishment cost (for a fruit mix of this nature) would amount to R178,622 per hectare. If government intended to carry the full cost, it would have been able to establish only 59.7 ha (and not 313) with the R10,66 million it invested in the Boompie Project. This would imply that only 89.5 jobs (instead of 469) would have been created. It follows that, by working together, 5.24 times more jobs were created and fruit trees established than if government proceeded on its own.

A second interesting comparison is to consider the outcomes which would have been achieved if this R10 odd million rand was used in another way. To facilitate this comparison information compiled by, and generated for, non-agricultural sectors of the economy was used (see Table 3).

The implication of this information is that for every R1 investment in Agriculture (irrespective of its source) the output of the Sector would increase by R1,79, South Africa’s export earnings will growth by R0,22 and R0,56 would end up back in government’s coffers. At the same time 10,5 jobs would be created for every R1 million investment. In the case of manufacturing, a R1 investment would lead to R1,13 increase in output, R0,13 increase in export earnings and R0,35 would return to the fiscus whilst the R1 million investment would lead to just three jobs being created.

With the aid of this information the various options open to government can now be compared (see Table 4). We have already established that the net present value of the income generated through the Boompie Project is R83,135 per hectare. It follows that, with the R10,66 million CASP funds invested in the Boompie Project, an annual income stream of more than R26 million per year was generated. The project generated 469 jobs and, based on

Table 3: Multipliers of sectors of the South African economy.

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>OUTPUT</th>
<th>EMPLOYMENT</th>
<th>EXPORT EARNINGS</th>
<th>FISCAL REVENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>R 1,79</td>
<td>10,5</td>
<td>R 0,22</td>
<td>R 0,56</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>R 1,13</td>
<td>3,0</td>
<td>R 0,13</td>
<td>R 0,35</td>
</tr>
<tr>
<td>Construction</td>
<td>R 0,81</td>
<td>2,5</td>
<td>R 0,11</td>
<td>R 0,26</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>R 0,72</td>
<td>3,3</td>
<td>R 0,09</td>
<td>R 0,23</td>
</tr>
<tr>
<td>Mining</td>
<td>R 0,60</td>
<td>0,5</td>
<td>R 0,07</td>
<td>R 0,19</td>
</tr>
<tr>
<td>Finance</td>
<td>R 0,49</td>
<td>1,0</td>
<td>R 0,07</td>
<td>R 0,16</td>
</tr>
<tr>
<td>Transport &amp; Comm.</td>
<td>R 0,03</td>
<td>0,1</td>
<td>R 0,15</td>
<td>R 0,01</td>
</tr>
<tr>
<td>Electricity</td>
<td>R 0,03</td>
<td>0,1</td>
<td>R 0,01</td>
<td>R 0,01</td>
</tr>
</tbody>
</table>

Source: PAIRS (2011)

Note: Multiplier of R1 investment with the exception of employment which denotes R1 million investment in the Sector.
industry averages, additional export earnings would be more than R11 million per year. It is unfortunate that the appropriate information is not available to calculate the increase in fiscal revenue, but one could expect that government would receive its money back.

The closest rival to the Boompie Project would be a full investment in general agriculture. By investing the R10,66 million in agriculture, the economy would grow by R19 million, 112 jobs would be created, exports would increase by R2,3 million and R5,9 million would flow back into government coffers. The benefits from manufacturing would be third, followed by construction and the other sectors of the economy. If the money was invested in mining, only R6,4 million would be added to South Africa's economy, five jobs would be created, export earnings would increase by R0,746 million and government revenue would increase by just over R2 million (see Table 4).

**Conclusions**

One of the realities of life is limited resources and hence the subject field of economics has developed to help managers to make decisions regarding the most appropriate way of allocating these scarce resources. The purpose of this paper is to explore the outputs generated by the investment of money from the Comprehensive Agricultural Support Programme (CASP) in the so-called Boompie Project. This project is a partnership between the WCDoA and the Deciduous Fruit Industry with the objective of improving the livelihoods of previously disadvantage fruit farmers in the Province. To help the participating farmers to access existing supply chains, the industry took the responsibility to provide technical advice and the appropriate fruit trees. The Department, in turn, supplied specific capital items.

Through this partnership government invested R10,66 million and the Industry contributed R13,14 million to establish 313 ha of fruit trees. Whereas it would have cost government R178 622 to establish each hectare of trees, the partnership resulted in a CASP investment of just R34 104 per hectare. In the process 469 long-term sustainable jobs were created at the once-off cost to government of

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>OUTPUT (R1 000)</th>
<th>EMPLOYMENT (Number)</th>
<th>EXPORT EARNINGS (R1 000)</th>
<th>FISCAL REVENUE (R1 000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boompie Project</td>
<td>R 25 987</td>
<td>469</td>
<td>R 11 215</td>
<td>NA</td>
</tr>
<tr>
<td>Agriculture</td>
<td>R 19 082</td>
<td>112</td>
<td>R 2 345</td>
<td>R 5 970</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>R 12 046</td>
<td>32</td>
<td>R 1 386</td>
<td>R 3 731</td>
</tr>
<tr>
<td>Construction</td>
<td>R 8 635</td>
<td>27</td>
<td>R 1 173</td>
<td>R 2 772</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>R 7 676</td>
<td>35</td>
<td>R 959</td>
<td>R 2 452</td>
</tr>
<tr>
<td>Mining</td>
<td>R 6 396</td>
<td>5</td>
<td>R 746</td>
<td>R 2 026</td>
</tr>
<tr>
<td>Finance</td>
<td>R 5 224</td>
<td>11</td>
<td>R 746</td>
<td>R 1 706</td>
</tr>
<tr>
<td>Transport &amp; Comm.</td>
<td>R 320</td>
<td>1</td>
<td>R 1 599</td>
<td>R 107</td>
</tr>
<tr>
<td>Electricity</td>
<td>R 320</td>
<td>1</td>
<td>R 107</td>
<td>R 107</td>
</tr>
</tbody>
</table>

*Source: Own calculations and calculated from the information in Table 3.*
R22 736 per job. At the same time the participating farmers can depend on an annual income stream of R83 135 per hectare in perpetuity. It is important to note that, if government did not enter into this partnership, it would have been able to establish only 59.7 hectares and created just 89.5 jobs. It follows that the partnership extended government funds by a factor of 5.24 times.

The question still remains whether government could have received more value for its money if the funds were invested in a different sector of the economy. It was found that, whereas the Boompie Project created 469 jobs as well as annually increased output by R26 million and export earnings by R11 million, the investment of a similar amount of government money in manufacturing would create only 32 jobs as well as an annual increased income of R12 million and export earnings of R1.4 million. Investment in other sectors of the economy (e.g. construction, mining, finance, etc.) would generate even worse results.

Based on the information discussed in this paper it can be concluded that the government money invested in the Boompie Project was well spent towards the achievement of policy outcomes. Furthermore, these results would not have been possible if the partnership between the Department and the Industry was not established.

References
WCDoA (2013a) Project information. Western Cape Department of Agriculture, Elsenburg.
WCDoA (2013b) Geographic Information System. Western Cape Department of Agriculture, Elsenburg.
Ons bied 'n verskeidenheid landboukursusse aan. Kies Elsenburg sodat ons die landbousektor beter tesame kan laat groei.

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- Diploma in Voorligting (1 jaar)
- Diploma in Keldertegnologie (1 jaar)
- Perdestudies
- Kort Vaardigheidskursusse
- Leerlingskappe (1 jaar op NKR vlakke 1-4)

B. Agric Graad
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- Groot- en Kleinvee- en Groente- produkisie
- Pomologie
- Groente- en Diere- produkisie
- Keldertegnologie
- Wingerdbou
- Wynkunde
- Voorligting

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- Groente- en Diere- produkisie/Wingerdbou/ Pomologie

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Leerlingskappe
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