Nortier Navorsingsplaas is 50 jaar oud!

Research visit to Western Australia

Elsenburg obtains top results in the SANEF equine study programme
As this is our first Agriprobe for 2010, we would like to wish you all a most prosperous year ahead!

In this year of the Soccer World Cup, we are certainly going to do some agricultural “goal kicking and scoring” – all in an effort to grow agriculture in the Western Cape and securing our food basket.

In this volume, we bring you contributions from the Offices of Minister van Rensburg, Western Cape Minister for Agriculture and Rural Development and Joyene Isaacs, Head of Department.

A “fruit salad” of interesting snippets and articles follow and highlight our technical expertise and our involvement with international counterparts. Special emphasis is also on our human capital development focus and also highlights the opportunities for students studying at our Cape Institute for Agricultural Training.

Rural development is of utmost importance in our Province, and the article “Rural development – where to go” will give readers a first insight into this focus area of our Department.

We hope you will enjoy this volume!

Enjoy!
Rural Development in the Western Cape

Message from Minister Gerrit van Rensburg

“The Soccer World Cup has seen to it that Cape Town City receive an enormous boost in infrastructure investment. I think it is now time to look at our rural areas and focus the infrastructure investment drive outside the city boundaries. Rural Development has been identified as a strategic imperative by the Western Cape Provincial Government. The responsibility resides with me, hence the new title of Minister of Agriculture and Rural Development.

Rural Development will be done in cooperation with National Government, and our first partnership in this regard is already underway in Dysselsdorp outside Oudtshoorn.

Rural development must be sustainable. We need to make interventions that result in sustainable and self-sufficient structures that will continue to serve the rural communities, irrespective of the government of the day. Rural development will stand or fall on the ability of different departments to work together. We need to ensure that rural schools and clinics are maintained. The local police station should function and agricultural extension services should be available.

Cooperation during the planning phase of new projects needs to be revisited. I believe that a system were the different role players sit around a table and thrash out a development plan is much more conducive than the current practice where proposals are send from one department to the next for one another’s approval.

The need for public private partnerships cannot be over emphasised. In this regard government should allow the private sector to lead in terms of the kind of projects that will be suitable in a given rural setting. We will be guided by industries that are already established, and have proven themselves to be sustainable in a specific area when new projects are considered.

Cooperation during the planning phase of new projects needs to be revisited. I believe that a system were the different role players sit around a table and thrash out a development plan is much more conducive than the current practice where proposals are send from one department to the next for one another’s approval.

Let me also use this opportunity to congratulate Stefan Conradie on his appointment as Chief Director: Rural Development. I expect of him to think creatively, but also pragmatically, on how to stimulate the development of our rural communities.”
In the December issue (December 2009), the 5-year plan for the Department was shared with the AgriProbe readers, and this article presents a snapshot of the annual plan of the Department with targets, which ultimately contributes towards reaching the strategic objectives for the 5 years.

The Department of Agriculture plays a role in three strategic objectives identified by Cabinet. These three objectives are:

1. Creating opportunities for businesses and citizens to grow the economy and employment,
2. Mainstreaming sustainability and optimising resource-use efficiency, and
3. Alleviating poverty.

In response to the three strategic objectives, the Department determined the five key strategic goals to give effect to these outcomes:

1. Maintain the 23% export contribution the Province makes towards the country profile for the next 5 years.
2. Ensure that at least 75% of all agricultural land reform projects in the Province are successful over the next 5 years.
3. Increase agricultural production (all provincial commodities) by at least 10% over the next 10 years.
4. Protect and enhance the use of our natural resources in a sustainable manner within the climate change context to ensure food security.
5. The development of two rural nodes to reduce the local unemployment and attract private investment into the respective rural nodes.

Below are more details as to how we will respond to make this a reality in 2010 and beyond...

**PROTECT AND ENHANCE OUR NATURAL RESOURCES**

The Province has experienced a drastic increase in natural disasters during the past three years and the indications are that this trend will continue as the impacts of climate change take effect.

- Technical assistance and financial aid were, and still are, provided to affected land owners and since May 2007 more than R70 million have been paid out. By providing this disaster aid we have assisted 982 farmers and protected 2 062 farm workers' jobs and their 3 241 dependants.

- A pro-active approach towards natural disasters requires risk prevention and reduction measures that have to be incorporated in our Agricultural Disaster Management Strategy that will be compiled in 2010/11.

**USING NATURAL RESOURCES TO CREATE EMPLOYMENT**

45 LandCare projects will create more than 25 000 person days of labour each year, through our clearing of alien invasive vegetation and other natural resource protection projects. In the 2009/10 year we created 29 697 person days (last quarter estimated) of labour for 1 257 beneficiaries. This is equivalent to 123 permanent jobs being created.

**CLIMATE CHANGE AND THE AGRICULTURAL SECTOR**

The effect of climate change on agriculture in the Western Cape will be one of the major determinants of the sustainability of this sector and the competitiveness of its farmers. The Department will actively focus and pursue agricultural practices that will lead to adaptation of specific strategies and mitigation of this phenomenon. The service delivery agenda of the Department will include decision-making support with relation to the choice of farming activity, the optimal use of natural resources (water and land) and the promotion of conservation agricultural practises and more efficient use of water, by both commercial and emerging farmers. In this regard, several programmes and projects will be redirected and initiated to give effect to the above and to give impetus to the long term objectives of sustainable agricultural production and food security.

**SUPPORT TO COMMERCIAL AND SMALLHOLDER FARMERS**

A number of the challenges (i.e. adverse climatic conditions, geographically dispersed economic activities, biological processes, social and redress responsibilities, market and political risk, etc.) faced by the agricultural sector are not unique to this sector; the combination of all these challenges in one sector are unique to agriculture. It follows that a distinctive approach needs to be taken in rendering appropriate services to this sector.

In 2009/10, in response to the economic climate, 444 household food production units were provided to individual indigent households in collaboration with municipalities. 35 Communal food production initiatives were facilitated in support of 594 subsistence farmers in the Province. A total of 947 smallholder
farming enterprises and 318 commercial farming enterprises have been supported with extension and advisory services. To improve the quality of our advisory services delivered to our farmers, the Department is currently rolling out a web-based information system that will enable extension officers to access expert technical information in the field as needed.

The Department’s key focus will be to increase commercial production and maintaining the current rate of exports of agricultural produce and to ensure sustainable food production for poor households and communities. The purpose of the Production Strategy is to unlock the principles and support structures embedded in the success of the commercial sector, to the benefit of new entrants into agriculture.

MARKET ACCESS
One of the Department’s goals is to ensure that the current contribution amounting to approximately 23% of agricultural exports is maintained.

- The Market Access Programme supported more than 100 producers towards achieving market access at both domestic and international markets. In the past three years, approximately R1.5 million has been spent on the activities of this programme, while an amount of about R2 million has been committed to the programme for 2009/10 financial year.

- Future intentions are to work closely with the strategic partners (i.e. various industries and agencies at both local and international levels) on programmes that aim to enhance market access, as it is one of the key priorities of the Department for the next five years.

In support of economic development, international trade and job creation, the Western Cape Province remained a strategic gateway for export of animals and animal products through efficient and effective implementation of export control measures as prescribed in various trade agreements. Farmers in both the Western Cape and the rest of the country relied on the competencies and skills of the Western Cape for export facilitation of their products. In fact, nearly 60% of South Africa’s Ostrich abattoirs and 50% of Wild Game meat abattoirs are located in this Province.

All export veterinarians of this Province successfully completed a Global Food Safety Standards auditing training of British Retail Consortium (BRC) during , in order to remain at the forefront of the latest developments in relevant food safety technologies and legislations - thereby being the only Province with abattoir veterinarians recognised as being on par with their EU counterparts insofar as international food safety law is concerned.

Methodical and comprehensive animal disease surveillance and animal disease control allowed Veterinary Services to provide the necessary zoonsanitary guarantees required for the export of animals and animal products. Major components of these exports are ostrich meat and products and game meat to the European Union. In addition, large volumes of dairy and poultry products are exported to sub-Saharan Africa. The export of racing and endurance horses to the Middle East and Europe also proceeded satisfactorily due to the maintenance of an African Horse Sickness Free Zone near Cape Town.

Delivery of high levels of Primary Animal Health Care services to emerging farmers also advanced food security and socio-economic conditions of these citizens. The threat of animal diseases such as rabies, bovine tuberculosis and various internal parasites spilling over to humans was also mitigated by these veterinary interventions.

The Provincial Veterinary Laboratory (PVL) provides laboratory diagnostic support to a wide range of clients including State Veterinarians, private veterinarians and both commercial and emerging farmers.

AGRICULTURAL COMPETITIVENESS WITH OUR RESEARCH AND DEVELOPMENT EFFORTS
Research and technology development is pivotal to the sustainability and profitability of the agricultural sector, especially since our farmers are now producing in the global context with a new playing field and many new rules and regulations. Competitiveness is key to our agricultural successes, especially in the context of increased exports and foreign income. An excellent example in this regard is the ostrich research programme of our Department.

- Ostrich products are much sought after in the world, not only for its feathers and leather, but also for the quality and healthy meat products. It is calculated that approximately 60% of all ostrich products in the world originate from South Africa. The brutо value of the industry is estimated on R770 million per annum, whilst the feed processing industry are delivering feed to the value of R550 million per annum to the ostrich industry. It is calculated that for each R1 million increase in the primary industry, more than 67 jobs will be created. The ostrich

continued on next page
research team of the Department, operating from its Centre of Excellence in Oudtshoorn, has established itself as a world leader on ostrich breeding, feeding and management and has the largest research flock in the world.

- The value of crop rotation research in the Western and Southern Cape has now also come to fruition with this practice being part of our conservation farming drive against the backdrop of climate change. Important research on fertilising requirements for crops in the Swartland will also lead to lower input cost to the farmer, and more sustainable and environmentally friendly production practices.

The economic modelling research through collaboration with the Bureau for Food and Agricultural Policy (BFAP), Universities of Stellenbosch and Pretoria continued to yield good results. It has proven itself again during the 2008/09 financial year as a valuable resource not to government only but to agribusiness and farmers by providing analyses of future policy and market scenarios and measuring their impact on farm and firm profitability. The commodities of importance in the analysis include wheat, barley, potatoes, dairy, meat, wine, table grapes, pears and apples which are of strategic importance to the Western Cape Province.

A CAPABLE AND SKILLED WORKFORCE

The Department contributes to human capital development in agriculture by offering accredited training programmes and modules on FET- and TE levels. During the past year, the Programme continued to offer short skills courses, Learnership training, Higher Certificate-, Diploma- and B.Agric training to the range of clients of the Department within the context of needs-based interventions.

At the end of the 2009 academic year, 108 Tertiary Education students graduated from the Cape Institute for Agricultural Training: Elsenburg (CIAT). Out of 128 active learners enrolled for Learnership training, a record pass rate of 87.5% was achieved, resulting in 112 learners graduating in December 2009 on NQF levels 1 to 4.

The Cape Institute for Agricultural Training: Elsenburg continued with its strong international training programmes. In total, 60 extension officials were given in-service training, 8 extension managers were trained, 9 students obtained their Masters’ degrees in Rural Innovation, and 2 PhD. students were assisted in their studies towards their qualifications.

The Western Cape Burgundy wine exchange programme continued, where ten previously disadvantaged individuals underwent basic viticulture- and oenology training, combined with a practical harvesting period in France. Eight cellar workers were afforded the opportunity to complete the barrel management and maintenance programme, four aspirant cheese-makers and three aspirant sommeliers were trained at the CFPPA (Centre de Formation D’Apprentis Viticoles De Bourgogne) in Burgundy as part of this flagship international exchange programme. The programme will continue in 2010/11.

RURAL DEVELOPMENT

The National Minister for Rural Development and Land Reform and the Department of Agriculture identified Dysselsdorp (just outside Oudtshoorn) as the Western Cape node for rural development.

The key deliverables for the Dysselsdorp node that will be monitored are:

1. Targeting to increase the average monthly household income from R1800 to R2100
2. Reducing the 2 850 unemployed adults to 2 350 by creating 500 sustainable jobs
3. Targeting 1 000 unemployed adults to receive skills training
4. To accommodate 50% of adults that received skills training in sustainable jobs
5. Implementing 100 household gardens at the poorest households to improve household nutrition
6. Implementing one community garden that will provide vegetables to the poorest of the poor

Economic development projects in the production of ostrich, plant seed, vegetables, liquorice oil and essential oils are being considered as well as opportunities in fruit and vegetable drying.

It is our goal to establish a second rural development node in the Western Cape in the next four years. The name of this node will be announced at a later stage.
Mosstrich Limited, a Mossel Bay based company which exports ostrich and wild game meat to Europe, was named the overall winner of the annual ABSA / Cape Chamber of Commerce ‘Exporter of the Year’ competition at a glittering banquet held at the Westin Grand Arabella Hotel in Cape Town. The competition was open to all Western Cape based exporters of products or services.

The Mosstrich Group, consisting of 160 ostrich producers as share holders, is responsible for the production of ostrich and wild game meat products, of which more than 95% is exported to European Union countries including Germany, France, Belgium, Italy, Spain, the UK and Netherlands. Apart from Ostrich, also Springbok, Blesbok, Kudu, Impala, Wildebeest and Zebra are used for the production of client-specific meat products. The tannery (SCOT) produces ostrich leather for the manufacture of luxury leather articles, clothing and footwear across the globe.

The independent judges considered factors like increased export turnover, innovative new products or packaging design, job creation, social- and environmental responsibility as well as quality management.

Mosstrich earned the ABSA trophy after increasing export revenue for the previous year by 88%. In addition, an estimated 60 new job opportunities were created due to value-adding on ostrich and wild game meat. This success was helped by the decision to enhance the value of its products by customer-specific cutting and packaging of retail-ready portions. These products have a specific advantage for European retailer and restaurant groups in the fact that pre-packed meat potions of uniform weight can be easily marketed without further processing.

During the past year Mosstrich became the first ostrich and wild game meat production facility to obtain both the internationally accepted HACCP (food safety) and BRC (quality management) certificates at ‘A-grade’ level together with the ISO 14000 environmental management certification of the tannery.

According to the managing director of the Group, Dr. Francois de Wet, the Mosstrich trademark has enjoyed popularity under European importers for over 10 years with the addition of wild game meat products as a logical expansion of core business. Mosstrich is one of the few agricultural businesses that, apart from BEE shareholding, still remain totally in the hands of primary producers. This is a unique business model that enables the company to buy in raw material from primary producers at the highest responsible price whilst maintaining the normal business principles of profit making, build-up of reserves and cash flow management. This enables the farmer as primary producer to be involved, and thereby empowered, in all the steps during the supply chain production, i.e. ‘from farm to fork’. De Wet also stated that without the excellent mutual relationship between Mosstrich and the Department of Agriculture, responsible for maintaining EU export legislative standards, no export business would be possible for Mosstrich. He said that the South African ostrich industry is not sustainable without meat exports to the European Union and that the DAFF’s role in this is pivotal.

Although the market for luxury ostrich leather articles has weakened in conjunction with the global economic recession, the demand for ostrich meat has remained strong. Mosstrich expects a slow recovery of the world luxury markets. The Group’s tannery, however, produces ostrich leather of a very high quality and will be ready for any upswing in demand. SCOT was recently appointed by the UK based magazine ‘World Leather’ as one of the ten tannery finalists for the prestigious ‘World Leather Tannery of the Year’ award. The overall winner will be announced at the APLF Leather Fair, Hong Kong in March 2010.
Nortier Navorsingsplaas by Lambertsbaai aan die Weskus was verlede jaar 50 jaar oud. Die geleentheid is gevier met 'n inligtingsdag op 17 November 2009 waar inligting rondom navorsing gedoen op Nortier en in die omgewing, oorgeda is. Die dag is afgesluit met 'n boomplantseremonie, waar Minister Gerrit van Rensburg, Wes-Kaapse Minister van Landbou en Landelike Ontwikkeling, 'n Apiesdoringboom by die kantore geplant het.

Nortier plaas is 2 850 ha groot en grens aan die Atlantiese oseaan en is geleë in die Lambertsbaai Strandveld veldtype. Die plaas is vernoem na Dr Pieter la Fras Nortier wat grootliks daarvoor verantwoordelik was dat die eens verwaarloosde stuk staatsgrond gedurende die dertiger jare tot 'n veldreservaat verklaar is. Die doel hiermee was om te sien tot watter mate die natuurlike veld van die Sandveld kan herstel deur algehele beskerming.

50
Nortier Navorsingsplaas is 50 jaar oud!

DIE ONSTAAN VAN NORTIER – ’N INTERESSANTE VERLEDE
Die oorspronklike plaas Boberg, waar Nortier vandag geleë is, was een van die eerste plase in die gebied wat deur blankes bewoon was, toe Gerrit E Smit op 31 Desember 1831 met die staat 'n huurkontrak gesluit het teen R4.50 per jaar vir die 4 072 ha – slegs vir weidingsdoeleindes vir sy beeste. Hy herdoop die plaas toe na Otterdam. Robert Grissol word op 1 Junie 1858 die eerste amptelike eienaar van Otterdam wat dit by die regering gekoop het. Die plaas het verwissel van menige eienaars en in 1903 word 'n deel (24 morge en 500 vierkante roede) aan die mond van die Jakkalsrivier aan die Staat verkkoos as uitspanplek. Op 31 Desember 1909 word die res van die plaas terugverkoop aan die Staat vir £9 500. Die suidelike deel word as reservaat gereserveer en aan Lambertsbaai Dorpsbestuur oorgeda. Die noordelike deel (3 417 morge), vandag die Navorsingsplaas, word as weiveld verhuur deur die Departement van Lande.
Hierdie deel word egter tot so’n mate oorbewei dat die plaas verander het in drywende waaisand en dit word toe deur die Afdelingsraad Clanwilliam onder die aandag van die oweder gebring. Dr Pieter La Fras Nortier (‘n lid van Clanwilliam Afdelingsraad) en andere beywer hul vir die bewaring en herwinning van die veld van Otterdam en word die noordelike deel in 1935 as plaaslike gebied geproklameer en staan bekend as “Die Plaaslike Gebied van die Nortier Reserwe van Otterdam”, vernoem na Dr Nortier. In 1937 vaardig die Minister van Binnelandse Sake ‘n proklamasie kragters Artikel 8 van die Wet op Natuurlike en Historiese Gedenkwaardighede (Wet 4 van 1934) uit, waardeur dit vir algemene inligting bekend gemaak is dat die Nortier Reserwe geproklameer is as historiese gedenkwaardigheid.


Op versoek van die Nasionale Botaniese Tuin van Suid-Afrika is ‘n klein gedeelte van die proefplaas in 1965 toegekamp. Dit is tans die enigste stukkie natuurlike veld in die Sandveld wat beskou kan word as verteenwoordigend van die oorspronklike flora van die gebied. Dit is sodoendien nog nie weer bewei nie, behalwe deur klein wild. Die veld op Nortier Navorsingsplaas is oor die algemeen in ‘n goeie toestand en kan dien as barometer waardeur veld in die omgewing geneem kan word.

Oor die afgelope 50 jaar is verskeie projekte deur die Departement op Nortier gedoen. Die meeste het gefokus op veldweidingsmonitoring en bestuur, soutbosse asook projekte wat gefokus het op kleinvee en beeste.

Tans word ‘n saadvermeerderingseenheid ontwikkel waar saad van sommige inheemse plantspesies, eie aan die omgewing, vermeerder gaan word en beskikbaar gestel word aan grondgebruikers vir gebruik in veldverbetering en restorasiewerk. Daar word ook onderzoek ingestel na kruiseling met verskillende veerasse, soos die Afrikaner en Vleismerino. Verskeie ander projekte word ook beplan.

Vir meer inligting oor Nortier kan Christie Rheeder by tel 027 432 9903, faks 027 432 9905 of e-pos christier@elsenburg.com gekontak word.
The management of the flagship long-term rotation and cultivar evaluation trials of the Department of Agriculture in the Western Cape encapsulates many facets, which require extensive knowledge. In order to keep the rotation and cultivar trials relevant, it is necessary to broaden the knowledge base in these fields. It is imperative to stay abreast of the latest research trends and to analyse and discuss results obtained from our Australian counterparts in order to alleviate some of the pressing problems in the Western Cape grain-producing areas. It was due to this reason that the research visit to Western Australia was undertaken.

During the visit we met with researchers in the Department of Agriculture of Western Australia and the University of Western Australia’s School of Biology. We also attended the WANTFA (Western Australia No-Till Farmer Association) and Liebe Group farmer days during our stay.

The WANTFA Spring field day was aimed at trials which focused on the broadening of knowledge concerning disc seeding systems, effects of residue treatment on herbicide tolerance in canola hybrids, herbicide tolerance of cereal crops to tillage systems, pasture establishment and disease issues. The main challenges in the Western Australian situation to no-till farming identified by WANTFA are:

1) Managing stubble or residue
2) Herbicide resistance
3) Inadequate diversity in the rotation of crops

The first two challenges are also faced by our local farmers. From discussions with some of the researchers it became clear that when it comes to crop diversity in the rotation systems, our long-term rotation trials are proving their mettle.

During the Liebe Field day we attended a talk titled: “Weed seeds at harvest – spread, catch, divert, burn or destroy?”. Targeting weed seed at harvest has been identified as a key strategy in controlling resistant annual weed populations. The control of these populations is a numbers game and weed seed removal is an excellent strategy that can be used to keep the numbers low. The removal of weed seeds at harvest is probably the most important non-herbicide weed management tool to achieve this. Several possibilities exist for handling weed seeds at harvest. Chaff carts, chaff balers, Harrington destructor or windrow burning being the most effective. Each of these has its own set of pros and cons (see article in booklet of field day, available from Dr. Strauss). It is important to remember that narrow windrows are important when it comes to burning the residues, since ryegrass seeds are killed at a temperature of 400°C in a time of 10sec, but wild radish needs 30 seconds at the same temperature. The speaker again stressed the fact that a slight wind is necessary at the time of burning and that no animals must be allowed on the field before the windrows are burnt. The problem with the chaff balers that are drawn behind the combine, is that it prevents the return of potassium to the soil from the degradation of the straw. The Harrington destructor has an international patent pending. The destructor consists of a cage-mill (used in mining) mounted on a trailer. The mill is connected to the chaff release and the straw moves underneath the mill and the combination of the powdered chaff and straw is then scattered behind the unit. The mill is strong enough to powder house bricks. The speaker showed calculations where it showed that to maintain a ryegrass seed bank, one needs to negate 90% of the seed each year. A 2% shift up or down could mean an explosion of ryegrass or a lowering of the seed bank. Several of the attending producers indicated that they use windrow burning as preferred method, while only 2 used chaff carts. The destructor might just be the answer to our ryegrass issue. The only drawback is the cost.

Another interesting discussion came while visiting the National Lupin Variety Trail. The year 2008 saw some problems with lupins in Australia. Split seed was noticed in large amounts of lupins tested at the silos. This might be due to a manganese deficiency. The result of the manganese deficiency is a poor establishment and subsequent vigour of the crop in the current season. The loss in vigour causes poor competitiveness of the crop and lower possible yields. With enough winter rain, the initial problem might be reversed since Mn becomes more mobile in the wet soil. However, the crop will be harvested later than expected. With the drying of the soil in spring (similar case scenario in South Africa), the Mn again becomes less mobile. If the plant demand is still high at that stage, insufficient levels of Mn will occur in the seed, leading to split seed. The problem might be overcome by applying a fertiliser high in Mn a little deeper in the soil (10cm) or by applying a foliar spray at pod-formation on the main stem, with an equivalent of 1kg/ha of elemental Mn. This might be a possible reason why we see some poor establishment in our own lupin crops in South Africa.
New cultivar possibilities for the South African market in 2011 might be the following:

WALAN 2275 as replacement for Tanjil (higher rainfall areas such as the Swartland) with excellent anthracnose resistance and better metribuzin tolerance

WALAN 2289 as replacement for Madelup. Higher yielding and reduced pod shattering.

There is a surge in the health food market demands and lupins are strongly considered as a possible source for human consumption. This might prove beneficial for the lupin industry in South Africa.

Canola in the National Variety Trial appeared similar to what we see in our own trials. Six cultivars used in South Africa were represented in the trial and included Tawriffic TT, Bravo TT, Rosttnest TT, CB Argyle, ATR Cobbler and Triumph Jardee (hybrid TT). New cultivars that might be applicable to our situation are CB Tanami, which is similar to Cobbler in a good short season. It was the highest yielding TT in low rainfall areas. CB Telfer is a cultivar that is better suited for direct harvesting. The pods of this cultivar are formed from very low on the plant. It is an early flowering cultivar with high oil content especially in low rainfall areas (available in 2010).

A meeting with Prof Stephan Powles, Leader of the Western Australia Herbicide Resistance Initiative, stressed the fact that it is important to use rotation with herbicides. This will lengthen the time herbicides will be available to use in no-till cropping. There is a lower chance of herbicide resistance using this method. The conversation turned to ryegrass and Prof Powles indicated that the numbers game is important when it comes to research in ryegrass resistance. The numbers must be realistic according to him (realistic being 100 plants per square meter). If the numbers are too high, it is difficult to make any realistic assumptions about control. On pasture topping he indicated that 100% of pastures in Western Australia are topped, making sure that no seed is produced. He stressed that farmers should place the same priority on weed control in pastures as in crop phases. He even felt that if a paddock has a too high concentration of weeds, it should be pulled from cropping for at least two years to ensure that weeds are eliminated. Keeping the paddock in pasture (annual legume) could ensure that a paddock is clean enough to carry crops for up to 5 years after that.

Dr Ken Flower is an agronomist working on cropping systems in the no-till environment and he is also involved in WANTFA. We visited their long-term trial at Cunderdin, where they test four different cropping systems and two seeding methods. The cropping systems include the following:

<table>
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<tr>
<th>Cropping System</th>
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<tr>
<td>Maximum carbon retention – 3-year cycle of cereals and cover crops</td>
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<tr>
<td>Maximum diversity – 3-year cycle of cereal, legume</td>
</tr>
<tr>
<td>Brassica flexibility – 3-cycle, anything planted based on beginning of season</td>
</tr>
<tr>
<td>Maximum profit – 3-cycle, farmer system based mainly on wheat</td>
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They used a thyne and single disc-seeder. The object of this trial was to evaluate the effect of high residue on a no-till system, whilst keeping the main characteristics of a no-till system (namely soil cover, crop rotation, integrated pest-control and controlled traffic (tramline)) in mind. The controlled traffic done by the tramline systems using GPS adds to the improvement of the

Canola seeding trial WANTFA
LandCare is a community based and government supported approach to the sustainable management and use of agricultural natural resources.

The overall goal of LandCare is to optimise productivity and sustainability of natural resources so as to result in greater productivity, food security, job creation and better quality of life for all. LandCare’s approach is to focus on major themes: Water Care, Soil Care, Veld Care, and Junior Care hence JUNIOR LANDCARE.

Both words care and land have an extremely powerful symbolic content and are used to bring divergent people together on an equal basis and with a common understanding. It is a long term investment with our children reaping the benefits of our LandCare efforts. The objectives of Juniorcare are to empower previously disadvantaged young people through various projects including the promotion of food security at home and at schools, awareness of sustainable agriculture and stimulating the formation of youth clubs.

Similarly, GAP strives to spread the message of respect and appreciation of nature and an awareness of the impact we all have on our limited resources. Youth awareness of sustainable living is our only future.

During the week beginning 26 October 2009, two Junior LandCare camps were held in Greyton. Both Berea Primary and L.R. Schmidt Primary Schools from Bereaville and Genadendal respectively enjoyed a two night camp in Greyton. These camps were sponsored by Junior LandCare with the aim of raising awareness around our unique biodiversity and its conservation. Greyton Adventure Programmes’ (GAP) vision is to encourage these children to develop their interest and passion for nature. This is done in an outdoor environment and includes hikes, treasure hunts, river studies and a farm visit. GAP also envisages making some impact on the lives of these children through messages of humane education, dealing with conflict and other personal development issues.

Highlights of the camp were a special talk on Blue Cranes by Bronwyn Botha of the Endangered Wildlife Trust; a 7km hike from Greyton to the Genadendal Museum and a visit to the Walker’s rotary dairy parlour on their farm Ouplaas. The Children
were kept entertained with a full programme of games and activities. Within these fun circumstances, the children experienced the importance of respect for others, nature and animals; a message which will hopefully play a continuous role in their lives. Seeds were sown of how to be a responsible person on this earth.

Marina Rust-Evans of Diadème Adventure & Language school also hopes to incorporate more Humane Education Trust materials (www.het.org.za) in the camps (as well as having direct contact with the schools), with the goal of creating a mindset in the way animals are treated. The idea is to start with awareness in petcare and also (in a level-headed way), raise awareness of where our food comes from. If we are to live sustainably, we need to consider ourselves as part of the whole picture and not be a ‘removed’ consumer with blinkers on.

The most recent camp was hosted by Greyton Adventure Programmes in the old Uitkyk Hostel in Greyton. This venue is ideal for school groups and the surrounds lend themselves to environmental education with fynbos and several streams right on its doorstep. The children’s introduction to birdwatching was keenly received with an impressive list of birds identified by the end of the camp.

Apart from the main sponsorship by LandCare, the children were kept well supplied with apples sponsored by Kromco. We would also like to thank Bronwyn of the Endangered Wildlife Trust for the captivating Blue Crane talk and Overberg Agri for donating a bag of wheat to put through the water mill at Genadendal, taking us back in history to an earlier time in agriculture!

The opportunity to visit the Walker’s dairy and their hospitality was much appreciated and GAP hopes that, with assistance from Parmalat and the Department of Agriculture, these dairy farm visits will have a positive impact on the children’s impression of agriculture so that they will become aware of the diversity of careers available within agriculture.

For more information contact:
The Caledon LandCare office at 028 212 1158
Vivi Mbandezelo / Ferde Hugo or Greyton Adventure Programmes at info@gotogap.co.za
Marina Rust-Evans / Mark Berning

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Speaking about harvest losses in canola, Dr Flower stated that it was his experience that they also have large losses in their harvesting process; maybe not as large as in our own context. He indicated that the average Australian farmer views his canola production as important as his wheat or barley production. They make sure to harvest the canola at the optimum time since wheat is much more tolerant to weather conditions during harvesting than canola. It is their experience that spraying paraquat to ensure a uniform ripening also helps to prevent shattering in canola.

The visit to Australia confirmed that our research in the long-term crop rotational trials and the management thereof is on par with that of Australian long-term research. We can hold our heads high and could provide our counterparts with knowledge on the rotation of crops within a no-till situation since theirs is lacking in that regard, as indicated in the WANTFA booklet. The Australians do have a couple of advantages above us; i.e. their farms are larger, their implements are newer, their agricultural arable land is flatter and has a higher soil content than we do (very little rock). However we feel we are more advanced than they are in certain fields. The Australian farmers do not do variable GPS fertiliser applications, as their farms have not been gridded. They do not know what types of soils they have on their farms (example Glenrosa). They say their farms are too large for this to be practical. In the research department they are doing some very interesting trials on weed control, as they have a very high resistance tolerance against herbicides. Their soils range from light sandy soils to heavy sand soils, with a higher clay content. Their researchers are faced with some drawbacks because their projects are only funded for three years, whereafter they must re-apply for funding and resubmit their project. This means they do not have any 20-year trials where they can see the real effect of rotational trials like we can. We feel that it is worth revisiting chickpeas as a possible alternative break crop for our local cropping systems, especially with the market demand in the East. Another possibility is the production of linseed for the health market. Apparently there is a market demand in Australia for this product.

Anyone interested in more detailed information is welcome to contact Dr Johann Strauss via email (johannst@elsenburg.com) or by phoning him (0829073109).
Prof Mark Hardy was invited to travel abroad, as a member of the research team, to accompany the research leaders of a bi-lateral research programme between the University of Stellenbosch and the Friedrich Schiller University of Jena, Germany. He also visited the Soil Service of Belgium and the University of Leuven, Belgium.

OBJECTIVES

The main objectives of Prof Hardy’s visit to the Friedrich Schiller University of Jena were to gain insights into the research programme of the hydrological modelling team that operate from the Fredrich Schiller University and into the broader concept of the bi-lateral research programme with Stellenbosch University.

The objectives of his visit to the Soil Service of Belgium and the University of Leuven, Belgium, were to make contact with scientists who work on the fertilization requirements of cropping systems within Belgium, as well as to enhance existing links between research institutions based in Leuven and the Agronomy Department of Stellenbosch University.

VISIT TO THE FREDRICh SCHILLER UNIVERSITY DEPARTMENT FOR GEOINFORMATICS, HYDROLOGY AND MODELLING

Discussions were held with Professor Wolfgang Flugel, head of the Department of Geoinformatics, Hydrology and Modelling at the Heinrich Schiller University, and his staff. This Department has developed the Jena Environmental Systems Analysis Toolset (JESAT) that forms the core of the bi-lateral research programme funded by the NRF (South Africa) and BMBF (Germany as bilateral programme UID: 69426), between the University of Stellenbosch and the Friedrich Schiller University of Jena. Collaboration with Prof Flugel and his Department provides additional capacity in support of a team of South African researchers that work on Dryland Salinity Dynamics in the Western Cape. This research is also funded by the Water Research Commission (WRC) (Contract K5/1849) in which Prof Hardy and the Department of Agriculture, Elsenburg, was subcontracted.

JESAT is described as “a multifunctional software toolset which contributes to the development of an Integrated Land Management System for Sustainable Integrated Water Resources Management”. Discussions were held with team members on the various components of JESAT:

1. Conceptual Response Units (RU) landscape model to delineate process related to model entities. The RU model includes a digital terrain model - rivers, streams, topography, soil maps and general land use;
2. Jena Adaptable Modelling System (JAMS) for modular research model development and model application by stakeholders;
3. Image Analysis platform for user defined automated information extraction from digital remotely sensed imagery;
4. J2000 model suite (incorporating 3 models) that simulates hydrological dynamics, water and solute transport and hydrological climate change impacts;
5. Adaptable Integrated Data Information System (AIDIS) is a web-based environmental knowledge and data management platform with GIS-functionality for information exchange between multidisciplinary research teams.

South African and German members of the bi-lateral research programme enjoying an evening at a traditional Christmas Market in Jena, Germany - f.l.t.r. Prof Nebo Jovanovic (CSIR), Prof Mark Hardy, Dr Jörg Helmschrot (Friedrich Schiller University of Jena), Dr Willem de Clercq (Stellenbosch University) and Prof Wolfgang Flügel (Friedrich Schiller University of Jena)

BODEMKUNDIGE DIENST FROM BELGIUM

The programme for this visit was arranged by Pr Piet Ver Elst, whose primary responsibility is to manage the soil nitrogen monitoring programme within the Bodemkundige Dienst (Soil Expert Service) from Belgium. Discussions were held with various personnel addressing the following subjects: the N-index expert system; a carbon simulator model; soil sampling and sample management; hydrological studies and irrigation recommendations; and liming and fertilization recommendations.

continued on next page
Aneke Williams articulated from FET to the SANEF Certificate of Horsemastership & Preliminary Riding Instruction. What is amazing is that she completed her studies as a riding instructor within two years despite never having had the opportunity to note a horse before.

During this period she mastered riding a horse herself and she has achieved the SANEF Certificate of Horsemastership & Preliminary Riding Instruction accredited qualification. She is also being considered as an intern to complete her international qualification.

Elsenburg obtains top results in the SANEF equine study programme

At the last Annual General Meeting of the SANEF National Instructors, the results were released. Elsenburg obtained the highest pass rate in all modules (except Module 2 where it obtained joint second place).

Prof Hardy also presented a seminar at Bodemkundige Dienst on rainfed cropping systems in the Western Cape.

UNIVERSITY OF LEUVEN

Discussions were held with Prof Merckx who is head of the Soil Science Department at Leuven University. He was interested in hearing about our long-term cropping systems research programme in the Western Cape, as he had been involved in one of the longest running cropping trials in Africa. Issues relating to the effects of tillage on soil carbon were also discussed. There was mention of the potential for the development of bilateral research agreements between our respective Institutions.

For more information on the trip and crop rotation trials, contact Prof. Hardy at markh@elsenburg.com or tel: 023 – 614 3639

Elsenburg delivers the first black female SANEF (South African National Equine Federation) Instructor

by Carol Levendal, Director: TE

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BACKGROUND
A cooperation agreement was signed between the Western Cape and Burgundy (France) on 12 September 2002 by the Premier of the Western Cape and the President of the Regional Council of Burgundy. The cooperation agreement is focused specifically on expanding and strengthening agriculture, trade and tourism in these two high value agricultural regions/provinces of both South Africa and France respectively. Several programmes were identified as areas for development for improved service delivery.

The Regional Council of Burgundy appointed the Centre for Formation of Professionals and Promotion of Agriculture Centre (CFPPA), an agricultural training institute, as the host and training facilitator for Western Cape: Department of Agriculture’s participants. The Department’s Cape Institute for Agricultural Training is host and facilitator for French participants in the programme. In November 2009, Farmer Support and Development extension officers participated in the two-week Agricultural Project Management training offered by the CFPPA, in a small historical town called Beaune, in the Burgundy region of France, known world-wide for its wine-making heritage.

OVERVIEW OF STUDY TOUR
The course comprised of a good mix of formal lectures covering content such as financial analysis and planning, business plan development, marketing and marketing plan development, etc. A number of farm/agricultural visits and interviews with farmers provided our officials with the opportunity to engage with them to gain insight into the practical challenges and key differences in farm planning, enterprise operation and government support. Farms visited varied from small 3 hectare, intensively manual, high value wine farms to extensive beef and dairy producers with emphasis on on-site value adding facilities. Farm owners, which were usually one or two family members, primarily worked the farms themselves with very little or no additional workforce.

The CFPPA made every effort to introduce the group to the cultural and natural heritage of the region through tours of historically significant sites and those with specific agricultural and wine making significance, such as, the Cote de Nuits Castle of Clos de Vougeot and Romane Conti. The Department’s officials were certainly put to the test with a fair amount of wine tasting, for educational purposes of course. Many braved the unknown culinary challenges and often were pleasantly surprised by the cordon bleu treats.

SALIENT LESSONS LEARNED
- Generally the farmers visited engage in agriculture to make a living and adopt it as a way of life. Additional staff is limited and enterprises are usually family owned and operated. LESSON: There is a need to address the large groups accessing land through the land delivery programmes in South Africa to improve viability and sustainability of individual farms.
- The size of land is in proportion to the number of people who will work the land and reap the dividends thus many farms are limited in size making it manageable. LESSON: The production potential of the land, the available human, natural, financial and other resources should be carefully considered and be matched with the appropriate agricultural enterprise, available land and beneficiary farmer. Our Departmental collaboration amongst Programmes and the collaborative approach to farm planning is paramount. Assessment and approval structures should be comprehensive and integrated to address these parameters upfront especially with our sister Departments such as Rural development and Land Reform.
- The production and value adding activities are quality and not quantity driven to offer the captive market with a unique product. LESSON: Smallholders have an opportunity to become very successful if we can identify the correct niche products for supply to captive markets and the success of this lies in careful planning.
- Training is a pre-requisite to qualifying for any support offered to farmers in France. LESSON: Greater emphasis is needed in capacity building of our new land reform entrants prior and post settlement. This will ensure that our farmers are technically competent and business management ready. Skills audits, gap responsive training and mentorship are imperative to the success of land reform.
FRENCH APPROACH TO SUPPORTING NEW FARMERS

- The regional (provincial) council appears to play a pivotal role in co-ordination of resources and support by the various stakeholders (including NGO type organisations – at regional/provincial level) involved in supporting farmers.

- Clear contracts are entered into between the Farmers and the Region’s supporting agencies to ensure that the support provided is used as planned towards an economically sustainable outcome. This holds the beneficiary farmers accountable to their commitment.

- Capacity building is paramount and an absolute prerequisite to any funding or other support provided within the region’s structures. If the farmer is not trained in the practical agricultural production as well as new business management he/she will not receive support. Farmers are offered training as part of an agreement with the Regional Council in order to become eligible to access funding to start a new farming enterprise, that is if he/she successfully completes the relevant training courses.

CONCLUSION

This opportunity has been an eye opening experience for our extension officers and a refreshing view on our own approaches within South Africa and it is this kind of learning opportunities that will lead to critical thinking and responsive planning to serve our clients better.

Sincere thanks to the Management Teams in the Western Cape Department of Agriculture and the Burgundy Regional Council, especially the CFPPA, for all their efforts in making this initiative possible.

Merci Beaucoup!
Die Kaapse Instituut vir Landbou-Opleiding het op 8 Desember 2009 sy jaarlikse gradeplegtigheid gehou te Elsenburg, die Hoofkantoor van die Wes-Kaapse Departement van Landbou. Die gasspreker by hierdie geleentheid was Prof Karaan, Dekaan by die Universiteit van Stellenbosch, asook die Hoof van die Departement, Landbou, Me. Joyene Isaacs.

Die subprogram: Voortgesette Onderwys en Opleiding bied jaarliks leerlingskapopleiding aan studente in die Wes-Kaap om vaardigheidsgapings in die Landbou-sektor. Leerders wat hierdie program deurloop, verwerf 'n Nasionale Sertifikaat op NQF vlakke 1-4 in landbou studies, o.a. Plantproduksie, Pomologie, Diereproduksie en Wynkunde. Die Nasionale Sertifikaat word deur die Nasionale Departement van Onderwys en Opleiding erken en is gelykstaande aan 120 krediete ter erkenning vir verdure studies; terselfdertyd word dit hoogs aangeslaan deur die landbou-sektor.

Die jaar 2009 was verval 'n hoogtepunt vir die sub-programme Verdere Onderwys en Opleiding, gemeeet aan die slaagsyfer van 80%, die getal leerders wat 'n sertifikaat verwerf het, asook 'n rekord getal van 166 leerlingskap registrasie-inskrywings aan die begin van die akademiese jaar.

‘n Verdere hoogtepunt was die suksesvolle artikulering van 12 studente wat die leerlingskapprogram voltooí het om hulle studies voort te sit in Hoër Onderwys. Twee van hierdie studente was aanvaar vir die B.Agric program. ‘n Beurstoekenning was ook aan die beste leerlingskapstudent, Me Neljanine Soman toegestaan, om met haar B.Agric studies te begin.

Agter leerders van die Grondhervormingsprojek “Bluemountain Berries” in die Outeniquastreek, het ook hulle sertifikate ontvang gedurende hierdie geleentheid. Hulle sal dus ‘n waardevolle bydrae kan lewer tot die produktiwiteit van die besigheid en die ekonomiese lewensvatbaarheid van die projek.

Die sub-programme Verdere Onderwys en Opleiding wens hierdie groep van leerders alles van die beste toe en hoop dat die kennis wat hulle opgedoen het, nie net tot hul eie vooruitgang sal dien nie, maar ook ‘n groot bydrae sal lever in die uitvoering van hulle take in werksverband.
Monday, 25 January 2010, was the official orientation and registration day for agricultural learnerships programmes, presented at the decentralised Further Education and Training Colleges in the province, i.e. Metro/Winelands & Boland region (Elsenburg main campus), Overberg, Klein-Karoo, Eden and WestCoast regions. The agricultural decentralised training centres play a critical role in the development of rural and peri-urban agricultural communities, farmers (both commercial and emerging), farm workers and the youth through the provision of short skills programmes and learnerships.

Targeted learnership training interventions focussing on vegetable production, animal production, viticulture, pomology, farming management on NQF levels 1-4 over a period of 12 months are presented. Practical short skills courses such as welding, tractor maintenance, pruning, agricultural marketing, financial management, etc over a period of 2 – 15 days are also presented.

On completion of the learnership programme, the successful candidate is awarded with an accredited competency certificate recognized by the Department of Higher Education & Training, as well as by the agricultural sector. Attendance certificates are also awarded to some of the short skills modules, pending an internal assessment of the learner’s knowledge and practicals at the end of the course module.

The closing date for admission to any of the programmes for 2011, is 30 September 2010.

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