INTRODUCTION

Welcome to the second SmartAgri Barometer of 2017!

When we launched the first edition in June 2017 with the aim to bring the latest news on the implementation of the SmartAgri plan to our stakeholders, we were already experiencing some adverse climatic conditions, not to mention the drought and water restrictions! Three months later and we are experiencing even more challenges in this regard. SmartAgri has been embraced by our stakeholders and we have experienced unbelievable activity in this space as farmers and other stakeholders are now confronting the proverbial “bull by the horns” in terms of climate change.

In this edition, some interesting events, projects, announcements and services available to our stakeholders are brought to you. Enjoy the read and let us make our province and agricultural sector more climate resilient!

SMARTAGRI ON AIR!

Our SmartAgri Barometer readers should not forget to tune into Radio Elsenburg for very informative talks on agricultural topics. Please go to www.elsenburg.com and click on resource library – Radio Elsenburg (RSG).

SmartAgri was also the focus on the broadcast of the 2nd of September 2017 and readers can download the information if they have missed one of the talks. Regular talks on SmartAgri will be done – so stay tuned!!!

PROF MIDGLEY APPOINTED FOR ANOTHER YEAR TO ASSIST WITH SMARTAGRI

In our first Newsletter we reported that Prof Stephanie Midgley was appointed as specialist consultant by the DoA to assist the Department to implement SmartAgri. Her initial term of contract came to an end at the end of August after she had been very active in our sector and presented at more than 18 events and gave input to many reports and requests. Her contract has now been extended for another year and her support to the sector will continue. Read more about her inputs in this newsletter.
Future proofing Western Cape agriculture through greater resource efficiency and improved resilience to climate change

The Western Cape Government (WCG) has identified the agricultural sector as vulnerable to climate change and has committed to guiding and supporting the sector to adapt to the unavoidable impacts of climate change through the implementation of the SmartAgri Plan.

The WCG is implementing a number of initiatives that contribute to building climate resilience in agriculture, however collaborative and coordinated planning and action between the public and private sector is essential to enable the Western Cape to utilise these opportunities and provide demonstrable economic, environmental and socio-economic benefits i.e. implementation requires the involvement of government (local, provincial and national), agriculture, commodity, farmer and labour organisations, individual farmers, agri-processors and agri-businesses, civil society and academic/research institutions.

SmartAgri’s explicit focus on collaboration across diverse stakeholders suggests GreenCape is well aligned to contribute to the proposed adaptation and mitigation activities - specifically as the Western Cape Green Economy Strategy Framework “Green is Smart” identified smart agri-production as a key driver for growth in green investment. As green investments can reduce the resource intensity of agriculture and agri-processing, and thus enable enhanced competitiveness and climate resilience, the strong linkages between GreenCape and green technology suppliers and service providers can ensure strategic knowledge transfer and the development of appropriate green technology solutions for the sector.

The need for this is noted in SmartAgri as follows: “The transition of the agricultural sector may well, in some areas at least, need to take a “leapfrog” approach as opposed to incremental steps, particularly in aspects of social change and optimised resource use approaches. If embraced, such an approach could open agriculture to new technologies, investment opportunities and jobs in the green economy, that are all requirements for the building of climate resilience.”

As a result, the Western Cape Department of Agriculture (WCDoA) has provides a mechanism to link GreenCape activities to the outcomes of the SmartAgri project through the climate resilience project (CRP). This project is specifically focused on building climate resilience in small holder farmers through agricultural extension, with the aim to drive climate resilience interventions that are relevant, scale-appropriate and support economic viability.

For more information on the project, please contact Cathy Pineo at GreenCape (cathy@greencape.co.za).
In a Better Together initiative, GreenCape, the Ministry of Economic Opportunities and the Western Cape Department of Agriculture (DoA) showcased the exciting developments in technology for sustainable agriculture on the 3rd August 2017 at the offices of the Ministry of Economic Opportunities in Long Street, Cape Town. This event was part of the “First Thursdays” initiative, which started in 2012 with the aim to create a space for the public to engage with and experience new things whilst exploring the city on foot. The Ministry of Economic Opportunities joined this initiative in a drive to make his office more accessible to businesses and entrepreneurs.

A range of stakeholders attended the public event and discovered more about the application of drone & satellite technology to improve water management, as well as the application of controlled environment agriculture as a tool for risk mitigation – both of which will be important as farmers increasingly face the challenges related to climate change. The World Wildlife Fund (WWF), as well as Nedbank and the Department of Trade and Industry (dti), provided information on their offerings including funding and incentives for sustainable agriculture. During the event, Durbanville Hills provided a wine tasting from their range of wines and highlighted their efforts to improve the energy efficiency of the farm through implemented energy efficiency audits and technologies, including solar PV systems.
The event not only enabled awareness creation, but also provided the platform for partnerships and conversations around future development and sustainability in agriculture. Minister Winde introduced each exhibitor to the audience and gave them the opportunity to ‘showcase’ their offerings to sustainable agriculture. The event attracted more than 70 visitors from in and around Cape Town including public and private stakeholders and academic institutions.

The event not only reinforced the great interest for sustainable agriculture, but also the need for further awareness creation and platforms where sustainable agriculture can be discussed by a variety of stakeholders.
The first week of August saw the 5th annual Conservation Agriculture conference week in the Western Cape. The week is named after “Oom Jack Human” who is considered the father of conservation agriculture in the province. The week features a day of lectures and a practical day, including local and international speakers. The 2017 lecture day was attended by 185 participants, while 125 attended the practical day that was held at Langgewens Research Farm of the Western Cape Department of Agriculture.

The two international visitors were Dr. Ken Flower (Australia) and Dr. Wendy Taheri (USA). Dr. Flower is a researcher and lecturer at the University of Western Australia with expertise in farming systems research, improving no-till systems, carbon sequestration through no-till, crop rotations, herbicide efficacy in no-till systems, cover crops, crop residue management and crop nutrition. Dr. Flower shared with delegates the importance of conservation agriculture in the Western Australian situation and also the challenges they face, which are very similar to our own. Dr. Taheri is a specialist in arbuscular mycorrhizal fungi (AMF) and runs her own research company focussing on the tremendous benefits these organisms brings to agriculture. AMF are plant symbionts that affect every aspect of plant physiology. Dr. Taheri explained the basics of mycorrhizal fungi, their importance in cropping systems and how they are affected by our management decisions. She also delivered a rousing talk on the importance of biodiversity during the practical day.

Local presenters at the lecture day included Dr. Ronel Hendriks (on the role of Trichoderma in grain production), Andre Fourie (discussing the relationship between cropping and animal production in local production systems) and a local farmer, Sakkie Rust (sharing his journey in converting to conservation agriculture).

The practical day focussed on the role of diversity through the inclusion of cover crops, the impact of resistant ryegrass on wheat production and some aspects of canola production. A wide range of disc seeders, with their respective manufacturers, was also available for viewing so that delegates could discuss the operational aspects and performance of these seeders directly with the manufacturers.

All presentations will be made available on the Conservation Agriculture Western Cape website (www.blwk.co.za). Previous conference presentations and the monthly newsletters can also be viewed on this website.

Dr. Johann Strauss
Senior Scientist
Directorate Plant Sciences
Programme Research and Technology Development Services
Western Cape Department of Agriculture
johannst@elsenburg.com

Presenters at the lecture day from left to right: Dr Johann Strauss (host), Mr Andre Fourie, Dr Wendy Taheri, Dr Ronel Hendriks, Dr Ken Flower and Mr Sakkie Rust
GreenCape is a non-profit organisation that drives the widespread adoption of economically viable green economy solutions from the Western Cape and were established in 2010 by the Western Cape Government to support the development of the green economy in the region.

GreenCape provides a free service and work with businesses, investors, academia and government to help unlock the investment and employment potential of green technologies and services. They work across several sectors, including agriculture, and focus on economically-viable and locally-relevant water, energy and waste solutions.

GreenCape’s Agriculture Sector Desk was established in 2014 in partnership with the Western Cape Department of Agriculture (WCDoA). This was motivated by:

- the current (and growing) significance of agriculture and agri-processing in the Western Cape (WC)
- the potential impact of climate change and resource constraints (particularly water)
- associated green investment and market opportunities
- the need for credible and readily accessible information for farmers.

The Agriculture Sector Desk aims to support the development of sustainable and competitive agricultural value chains through the uptake of green tech, systems and processes. This is done by raising awareness of the benefits of green tech and practices for farmers, and highlighting opportunities for green tech and services from manufacturers and providers. Two primary outcomes of the desk’s activities are:

- The GreenAgri portal (www.greenagri.org.za), which was launched in September 2015. The website focuses on sustainable agriculture and provides curated and trustworthy information to farmers and other agriculture stakeholders. To date this site has had over 14 000 users.
- An annual agriculture market intelligence report (MIR), which provides an overview of key green tech investment opportunities to improve the sustainability of the agriculture sector. You can download these reports here.

The Agriculture Sector Desk is run by Inge Kuschke, with a background in agricultural economics, and Jana Jordaan, with a background in environmental management. They are available to assist agri-businesses and investors with reliable information and market intelligence. Please see GreenCapes’ website and contact them for more information.

Contact details

Tel: 021 811 0250
Email: jana@greencape.co.za
inge@greencape.co.za

GREENCAPE’S AGRICULTURE SECTOR DESK – A USEFUL RESOURCE FOR AGRICULTURAL STAKEHOLDERS
The quarter June to August 2017 was special for the SmartAgri team: many invitations to present the SmartAgri project and SmartAgri Plan to various farmer associations and agribusinesses resulted in a significant increase in awareness of climate change and what the sector can do to adapt. Prof Midgley took to the road to participate in:

- a climate change symposium of the DuToit Agri technical managers (Ceres),
- the AGM of the Cape Agri Employers’ Organisation (Stellenbosch),
- the AGM of the Uniondale Farmers’ Association (Uniondale),
- the Agronomy Symposium of YARA (Durbanville),
- the AGM of Agri Western Cape (Goudini Spa),
- the AGM of the Cherry Farmers’ Association (Ceres),
- the AGM of the Elgin-Grabouw-Vyeboom-Villiersdorp (EGVV) Farmers’ Association (Vyeboom)
- the AGM of KORKOM (Koue Bokkeveld).

The common thread in all these meetings was the concern over the severe drought experienced across the Province. The weak confidence in near-term (rainy season) climate forecasts is forcing farmers to expect the worst in terms of rainfall for the remainder of the season. No guesses can be hazarded as to when the large dams will again reach “normal” levels and irrigation farmers will be assured their full allocation of water. It could take years. In this critical situation, proactive planning and the building of resilience (also called climate change adaptation), which is a strong focus of the SmartAgri Plan, is essential. Both dryland and irrigation farmers are advised to adjust to longer-term water scarcity, the “new normal” in all likelihood.

Agriculture cooperating with Disaster Management and Conservation

Farming is intimately linked to climate disasters, and the health of the natural ecosystems found on the farms and across the larger farming landscapes. Nature and farmers share the use of productive ecosystem services, such as the flows of sufficient clean water, carbon and nutrient cycling in healthy soils, and pollination. Healthy ecosystems also provide a significant buffer against droughts, floods and fires. This theme is featured prominently throughout the SmartAgri Plan. As part of the implementation of the Plan, Prof Midgley gave presentations at the Fynbos Forum conference (Swellendam), a meeting of the Gouritz Cluster Biosphere Reserve Forum (Riversdale), the AGM of the Agulhas Biodiversity Initiative (Caledon-Napier), and the Risk Symposium of the Western Cape Provincial Disaster Management Centre / SANTAM Ltd / the Disaster Management Institute of South Africa (Western Cape) (Bellville). SmartAgri is also represented on the Department of Agriculture’s Drought Committee which is currently taking the initiative to provide comprehensive planning and guidance on the drought to the sector. Clearly, the strongest areas of overlapping concern are the water scarcity, the Invasive Alien Plants, and the increasing fire risk, all linked (with mounting scientific evidence) to climate change. These challenges can only be confronted using a cooperative system-wide approach. It is good to see that these three sectors are increasingly searching for better collaboration with real on-the-ground benefits for nature and people.
AFAAS/SASAE/DAFF CSA conference: 30 October–3 November 2017: Durban

AFAAS (African Forum for Agricultural Advisory Services) and SASAE (SA Society for Agricultural Extension) together with DAFF will be holding a joint conference on the theme of “Scaling up climate smart agriculture (CSA): integrating youth, women, and the digital revolution”.

The theme was selected in recognition of the fact that climate change is having grave impacts on resource-poor African farmers and increasingly contributing to food losses along the whole value chain. According to the World Bank Group, FAO and IFAD (2015), CSA is an approach that can help to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security in a changing climate. Hence agricultural extension and advisory services (AEAS) should reorient and re-equip themselves to provide farmers and other actors in agricultural innovation systems with the knowledge and technologies they need to identify agricultural strategies and practices suitable to their local conditions. Several representatives from the Western Cape Department of Agriculture will deliver presentations at the conference.

The joint conference will focus on the following sub-themes:

1. Integrating youth and women in CSA
2. Scaling up ICT innovations for CSA
3. Scalable CSA technologies and innovations
4. Capacity development for scaling up CSA innovations
5. Knowledge management for CSA
6. Innovation for entrepreneurship

ENQUIRIES CAN BE DIRECTED TO:
The SASAE Secretariat (Mr. Ben Stevens) Tel. +27 (0)14 533 2172; Cell: +27 (0)82 331 8399; Fax: +27 (0)86 541 2166; Email: ben@sasae.co.za
The AFAAS Secretariat (Mr. Max Olupot) Email: molupot@afaas-africa.org
Mr. Theo van Rooyen (KZN Branch) Cell: 082 570 1983; Email: Theo.Vanrooven@kzndard.gov.za
The 4th Global Science Conference on Climate Smart Agriculture: 28 – 30 November 2017: Johannesburg

The 4th Global Science Conference on Climate-Smart Agriculture (The 4th GSC-CSA)” takes forward the initiative on research and science started in October 2010 with the aim to bring science to bear on practical advances in scaling up climate smart agriculture. Three scientific conferences have been held so far (University of Wageningen in 2011; University of California, Davis in 2013 and in Montpellier in 2015). Africa under the custodianship of the NEPAD Agency is hosting the 4th GSC-CSA from the 28th to 30th November, 2017 in Johannesburg, South Africa. SmartAgri will also be presented at the conference.

Conference Theme: “Catalysing Local Innovations and Action to Accelerate Scaling up of CSA”
ENQUIRIES CAN BE DIRECTED TO:

Tel:  +27112563605 / +27834610089
Email: 4thGlobalScienceConference2017@nepad.org
Website: http://csa2017.nepad.org/en/

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Interested persons who would like to get more information on SmartAgri and its related actions, are invited to contact Dr Trautmann and Prof Midgley. Please subscribe to the SmartAgri Barometer if you would like to be updated on a regular basis.

Newsletter compiled by:

Dr Ilse Trautmann (ilset@elsenburg.com)
Prof Stephanie Midgley (stephanie.midgley@gmail.com)
Arie van Ravenswaay (webeditor and designer)