TEKULIMA

NENTFUTHUKO

Q1-ISSUE 23

OUTBOUND MISSION TO CHINA SIGNS MoUs

FARMERS TO TAKE ADVANTAGE OF THE BLENDED FINANCE SCHEME

agriculture, rural development, land & environmental affairs
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

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SOUTH AFRICA 2025

MPUMALANGA
THE PLACE OF THE RISING SUN

EDITORS **NOTE**

Ms. Zanele Shabangu

Welcome to this Edition

I would like to present the first quarter of the 2025/26 edition of our departmental newsletter. We are excited to share the news, updates and achievements from the agricultural and environmental sectors with you, our stakeholder. Our goal is to keep you informed, engaged, and inspired about the important work implemented by the Department of Agriculture, Rural Development, Land and Environmental Affairs.

In this edition, we showcase the work of the Department from research and development to extension services and community outreach. We also highlight the impact of our initiatives on the agricultural and environmental sectors and the lives of our people. You will read about the successful week-long outbound mission to the People's Republic of China led by the Premier Mr Mandla Ndlovu from 16-20 June 2025. Some highlights include the review of the Mpumalanga Climate Change Response (Adaptation and Mitigation) Strategy and Implementation Plan for the Agricultural Sector which was completed successfully in all Districts during the month of May, with farmers and other stakeholders attending in numbers to make their inputs. The Department also succeded with the measures put in place to curb the potential spread of Foot and Mouth disease, which is good news not just for farmers only, but for the country as well.

We envision this newsletter as a platform for sharing knowledge, best practices, and innovations that will drive growth, sustainability, and food security. We look forward to hearing from our readers and exploring opportunities for collaboration.

Let me extend our gratitude to our contributors and readers for their support and enthusiasm. Your feedback and suggestions are invaluable in shaping the future of our quarterly publication, Tekulima, which you must feel free to share it further with your loved ones and friends.
Enjoy it, as we look forward to sharing more stories, insights, and updates in the near future issues.

I Thank You.

#MpumalangaTheProvinceThatWorksForAll

ABOUT US

The Department of Agriculture, Rural Development, Land and Environmental Affairs Administration is guided by a vision, mission and values developed to inspire and ensure alignment towards achievement of the department's objectives.

Our Vision

Our Vision is to be a Vibrant, equitable and sustainable communities with a united and transformed agricultural and environmental sector.

Our Mission

To facilitate an integrated, comprehensive, sustainable environmental and agricultural development in communities through ensuring social cohesion and collaboration by all sectors of society.

Our Values

Guided by the principles of Batho Pele, we will render services particularly based on the following values:

Result oriented, diligent and professional staff; Responsive to the needs of all citizens, particularly the poor, women, youth, elderly and persons with disabilities;

Driven by community-based development; A learning organization that is participatory in its approach and grows from its experiences and new knowledge and innovations; Promote and improve effective, efficient and responsive departmental systems and use of resources.
Act with honesty, ethical, impartial and with intergrity.

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LAYOUT AND GRAPHIC DESIGN: Muzi Mnisi

MEASURES TO CURB FMD SPREAD PUT IN PLACE

The Department of Agriculture, Rural Development, Land and Environmental Affairs' (DARDLEA) Veterinary Services continues to strictly monitor the four confirmed outbreaks of Foot and Mouth Disease (FMD), one from a farm in Dr Pixley ka-Isaka Seme Local Municipality, three from two farms and one abattoir in Dipaleseng Municipality. The outbreak investigations demonstrated the source for farm outbreaks was unmonitored movements of cattle from livestock auctions in neighbouring provinces and the abattoir outbreak was traced back from the feedlot in Gauteng.

The Department has since put control measures in place to curb any potential spread of the disease in the vicinity of the affected farms. This includes the deployment of Veterinary officials to affected areas, quarantine, cloven-hoofed animal movement control, surveillance and sampling in surrounding farms, public awareness, controlled slaughter of the affected animals, and no movement of animals from the affected areas. The outbreak at the abattoir has been eradicated and the remaining three farms are in processes of depopulation which will include vaccination of animals and later their slaughter out while under strict quarantine.

FMD is a highly contagious viral disease of cloven hoofed domesticated and wild animals. Wild cloven-hoofed animals are buffalo, giraffes, impala, etc. Buffalo usually serves as asymptomatic carriers of the disease. It can spread amongst cattle at a fast rate; it does not have a high mortality rate, but its effects are economic.

MEC LEADS FIGHT AGAINST PLASTIC POLLUTION

DARDLEA MEC Ms Nompumelelo Hlophe urged everyone to take action and prevent the disposal of plastic anywhere in our surroundings. MEC Hlophe was addressing scores of people who attended the provincial World Environment Day commemoration at the Simon Gondwe Sports Centre in Botleng, Delmas, on 5th June 2025. The day, celebrated under the theme: “Ending Plastic Pollution”, to mobilise for action to address plastic pollution, marked 53 years since the very first World Environment Day was launched at the 1972 Stockholm Conference, a global platform for raising environmental awareness and education.

More than 430 million tons of plastic are produced globally every year, and only a small fraction is properly recycled. The rest ends up clogging rivers, polluting oceans and even poisoning animals. At the event, MEC Hlophe also launched a booklet, simply tittled “Climate Change: Extending a Helping Hand” – a user-friendly manual that simplifies issues around climate change and what needs to be done to save future generations for its effects. Among those in attendance was acting Executive Mayors of Nkangala District and Victor Khanye Local Municipalities, local Traditional Leaders and NGOs

OUTBOUND MISSION TO CHINA SIGNS MoUs

Mpumalanga Premier Mr Mandla Ndlovu led a succesful week-long outbound mission to the People's Republic of China from 16-20 June 2025, that hit the ground running upon arrival by engaging various sectors there in an effort to foster partnerships for the province. The Premier's delegation included DARDLEA MEC Nompumelelo Hlophe, Director-General Ms Maggie Skosana, and HoD Mr Mfana Chunda among others. They also signed agreements with the City of Longman in Ganzu Province.

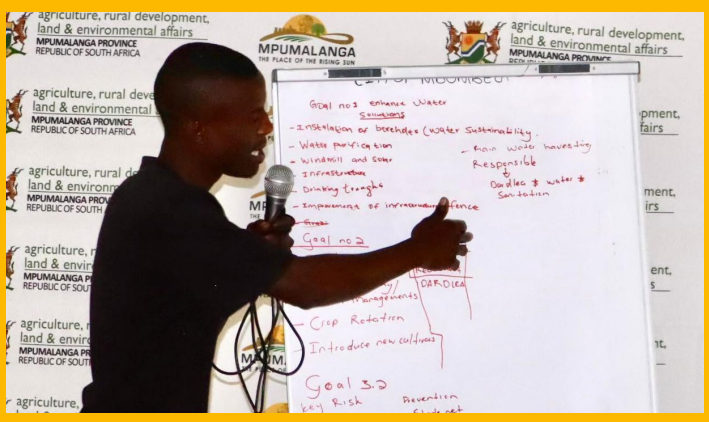
Areas of cooperation in the agreement include Industrial and agricultural cooperation; cultural and tourism exchange; new energy sector and green economy cooperation; traditional medicine and pharmaceuticals collaboration; talent identification and development; infrastructure development and comprehensive partnership on governance. The delegation visited a 1-million hectare Olive Orchard that produces dry and fresh olives and olive edible oils, olive whisky, olive cosmetics and olive pharmaceuticals for treatment of cancer and diabetes among others. They also visited the Zhejiang University's Academia Research Institute in Tianjin, among others.

CLIMATE CHANGE RESPONSE STRATEGY ALMOST COMPLETE

The process to review of the Mpumalanga Climate Change Response (Adaptation and Mitigation) Strategy and Implementation Plan for the Agricultural Sector was completed successfully in all four Districts during the month of May, with farmers and other stakeholders attending in numbers to make their inputs. Stakeholder engagements took place in Ermelo, Mbombela, Thulamahashe and Middleburg during the week of 15-22 May 2025.

Mamadi and Company SA, which has been appointed to develop the strategy, has been working collaboratively with the CSIR, the DARDLEA, DFFE and Urban Earth in facilitating the stakeholder engagements and workshops, towards developing and gathering inputs for the provincial strategy. Mamadi is now in the last stage of completing the whole process.

The workshops emphasized the importance of understanding the impacts of climate change on agriculture and identifying effective adaptation and mitigation strategies, such as conservation agriculture, climate-smart agriculture and irrigation management, among others.



FARMERS TO TAKE ADVANTAGE OF THE BLENDED FINANCE SCHEME

The National Department of Agriculture has presented the Blended Finance Scheme and the AGRO Energy Fund to Mpumalanga farmers who gathered at the Eastdene Community Hall in Middleburg on 18 June 2025, which are funding opportunities available to farmers from partnering financial institutions.

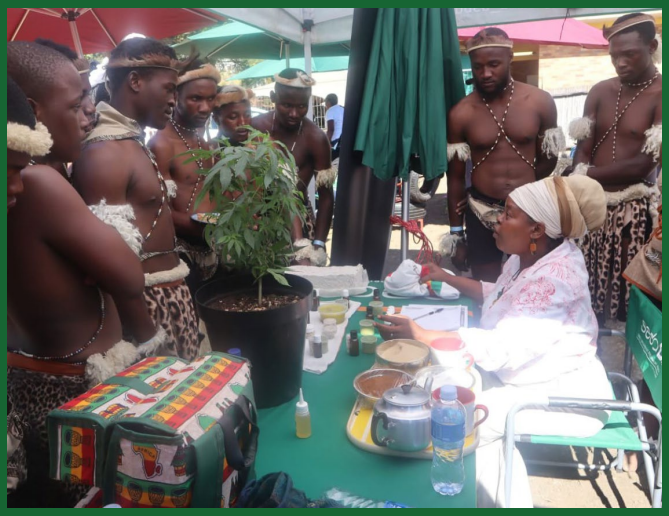
Held in collaboration with Mpumalanga Show and the DARDLEA, the massive roadshow reached out to about 600 farmers gathered under one foor, sharing insightful information on the funding opportunities available to farmers, and unpacking how they can access the blended finance grants and loans.

These farmers roadshows, that started in Thulamashe earlier in the month, were also part of preparing farmers for the soon-to-be-operational Mpumalanga International FoodMarket, a strategically located facility that has been developed to act as a catalyst for transformation of the agriculture sector, and will be offering plant products (horticulture), processed grains, animal products and aquaculture. The roadshows also aimed at setting the tone for the 2025 installment of the Mpumalanga Agricultural Show that will take place on 4-6 September 2025 at the Mbombela Stadium.

CANNABIS PRODUCERS CALL FOR LINIENT POLICIES

The Cannabis producers in Mpumalanga have welcomed the changes and new developments taking place in the sector, but pleaded with government not to over-regulate the industry, calling for more support instead. This came out at the 4th annual installment of Insangu (cannabis) Maganu (marula) Symposium, Expo and Culinary Festival held on 23 May 2025, in Schagen outside Mbombela.

The symposium aimed to create awareness and build capacity focusing on Cannabis policy issues, opportunities, challenges, markets, and synergies, to position the producers towards economic empowerment and unlock economic opportunities. A brainchild of the Lisango-Guma Cultural Village in Schagen, the annual event is supported by the DARDLEA, SEDA and other stakeholders. The Cannabis enthusiasts including exhibitors attended in numbers, showcasing their ideas and products processed from both cannabis and marula.



ILLEGAL DUMPING AT OSHOEK PORT OF ENTRY GETS ATTENTION

A two-day robust cleaning campaign on 10-11 June 2025 at the Oshoek Border Gate in Chief Albert Luthuli Municipality turned out to be a success, thanks to a collaborative effort with the local municipality and the Gert Sibande District Municipality, CWPs, Department of Forestry, Fisheries and the Environment, and Zonda Insila Programme (ZIP).

The team collected all the litter and cleared illegal dumping sites in the vicinity of the port of entry, collecting a significant amount of waste, most of which was sorted and packaged for recycling purposes. Those who participated in the clean-up were in full PPEs for their safety. The campaign, which targetted the local community and school, was aimed at creating awareness on environmental issues, the importance of protecting the environment by avoiding littering and illegal dumping, including promoting sustainable practices.

EXTENSION IS OUR DIRECT LINK TO FARMERS – says MEC

DARDLEA MEC Ms Nompumelelo Hlophe has reminded Extensionists and Agric Advisors that they are the foot soldiers in the coalface of food security, saying they are specialists through their direct interaction with farmers. She addressed the 2025 annual Provincial Extension Summit at the Graceland Hotel and Casino in Secunda on 29 April 2025, held under the Theme: "The effects of Climate Change on sustainable agriculture and food security".

Meanwhile, HOD Mr Cain Chunda said the Department depended on Extension and Agric Advisors for preparing farmers ahead of the planned operationalisation of the Mpumalanga International FoodMarket, saying they should be assisting farmers in every way possible to ensure they produce quality food that meet market standards, especially for exports.

"The Summit is held at a challenging time of climate change, which calls for more innovative ways to counter it's impact on agriculture, improvement in the profession and the use of technology and Digital media, among others",

said HOD Chunda. Representatives from the national Department of Agriculture, SACNASP, FAO, Agriculture Research Council, University of Mpumalanga, Mangosuthu University of Technology, South African Sugarcane Research Institute and other academic & training institutions were also in attendance. They all called for a collaborative effort between government, private sector and institutions of higher learning to improve extension services. Later that evening MEC Hlophe awarded certificates and cash prizes to best performers for their outstanding performance in the past year.

PORTFOLIO COMMITTEE TACKLES CPA CHALLENGES HEAD-ON

Communal Property Associations in Mpumalanga honoured an invitation by the Legislature's Portfolio Committee on Agriculture and gathered at the Gert Sibande District Municipality Council Chamber on 16 April 2025 to engage on their challenges. There are about 420 registered CPAs in the province, but only 15 are said to be running effectively. The Committee noted that as a challenge, because, according to Committee Chairperson Mr Collen Sedibe, CPAs are the result of a restoration and restitution programme that aimed at addressing the injustices of the past.

The Portfolio Committee heard that infighting, side-lining CPA committee members and beneficiaries, parallel committees running one CPA, CPAs not having Constitutions and/or no AGMs, Committee not democratically elected, allegations of political interference, bribes, corruption and favouritism, including the lack of understanding of agreements entered into, are some of the main challenges faced by CPAs. The interactive engagement was also attended by MEC Nompumelelo Hlophe, Amakhosi, SALGA and the Department of Land Reform and Rural Development, among others.

THE INFLUENCE OF SOIL TYPES ON PHOSPHORUS AVAILABILITY OF COWPEA GROWN UNDER BIOFERTILIZER AND PHOSPHORUS FERTILIZER APPLICATION IN MPUMALANGA PROVINCE OF SOUTH AFRICA

Results and discussion

Table 1: The effect of soil type and different treatments on rhizosphere soil available P in the 2019/20 and 2020/21 seasons

	Soil available P mg/kg	Soil available P mg/kg
	2019/20 season	2020/21 season
Soil type (ST)		
Hutton (ARC)	232.6a	143.7a
Glenrosa (Sabie river)	65.1b	60.8b
Treatment (TR)		
CONTROL	102.4d	64.9d
PHOS	130.7c	91.5c
BIO+PHOS	145.6bc	107.8b
BR+PHOS	167.2b	114.7b
BR+PHOS+BIO	198.3a	132.3a
SED	23	15
p-values		
ST	<.001	<.001
TR	<.001	<.001
ST*TR	0.158	0.04
CV (%)	15.2	14.7

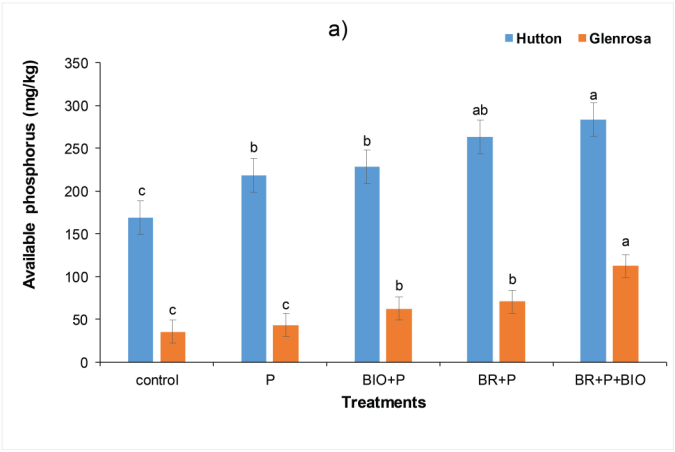


Figure 1: Two-way analysis showing the interactive effects of soil type (Hutton- ARC, and Glenrosa- Sabie River) and treatment on a) available phosphorus in the rhizosphere soil of cowpea in the 2020/21 season. Each bar represents the mean (n = 5). Treatments show significant differences at p≤0.05. CONTROL; P -phosphorus; BIO+ P- biological fertiliser, phosphorus; BR+P- bradyrhizobium, phosphorus; BR+P+BIO- biological fertilizer, phosphorus, bradyrhizobium.

SOIL PHOSPHORUS AVAILABILITY

The results of this study confirm the critical role of soil type in determining phosphorus availability and the overall effectiveness of nutrient management strategies for cowpea (Vigna unguiculata) cultivation. Hutton soil, with its sandy texture, near-neutral pH (5.98), and higher initial phosphorus content (33 mg/kg), provided favorable conditions for nutrient solubilization and uptake by cowpea plants. The combined application of Bradyrhizobium (BR), biofertilizer (BIO), and phosphorus (P) fertilizer (BR + BIO + P) significantly enhanced phosphorus availability, achieving a maximum of 198.3 mg/kg in the 2019/20 season.

Conversely, Glenrosa soil, characterized by loamy sand texture, slightly acidic pH (5.51), and lower phosphorus content (7 mg/kg), exhibited limited capacity for nutrient retention. Although phosphorus availability improved with the BR + BIO + P treatment (132.3 mg/kg), the gains were modest compared to Hutton soil. This aligns with findings by Bray and Kurtz (1945), who emphasized the influence of soil texture and pH on nutrient dynamics, and Fageria et al. (2013), who highlighted that acidic soils often restrict phosphorus availability.

CONCLUSION

This study underscores the critical role soil type plays in influencing phosphorus availability and the efficacy of biofertilizer and phosphorus fertilizer applications in cowpea production. The findings highlight that sandy Hutton soil, with its higher initial phosphorus content and favorable pH, consistently outperformed loamy Glenrosa soil in supporting phosphorus availability and crop growth across all treatments. Treatments integrating Bradyrhizobium, biofertilizer, and phosphorus (BR + BIO + P) demonstrated the highest efficacy, significantly enhancing phosphorus availability in the rhizosphere and promoting improved nutrient uptake and crop performance.

The relevance of this study lies in its contribution to sustainable agricultural practices, particularly for smallholder farmers in regions with phosphorus-deficient soils. By demonstrating the combined benefits of biofertilizers and phosphorus, the research provides a cost-effective and eco-friendly solution to improve cowpea yields while minimizing reliance on chemical inputs. The findings also emphasize the need for site-specific nutrient management strategies, especially in soils with inherent fertility challenges, such as Glenrosa, to optimize productivity and maintain soil health.

RECOMMENDATIONS

1. **Site-Specific Fertilization Strategies:** Develop customized nutrient management plans based on soil properties to optimize phosphorus use efficiency.
2. **Long-Term Studies:** Investigate the sustained impact of biofertilizer treatments on soil health across different soil types.
3. **Farmer Awareness:** Promote awareness of soil testing and appropriate fertilization techniques to maximize productivity.
4. **Soil Amendments:** Explore additional soil amendments to enhance nutrient retention in low-fertility soils like Glenrosa.

By addressing soil-specific challenges, these strategies can improve the efficiency of nutrient applications, enhance cowpea yields, and support sustainable agriculture.

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COMMUNAL RANGELAND CONDITIONS AND ITS DRIVERS IN MPUMALANGA PROVINCE

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ABSTRACT

Rangeland degradation is a global phenomenon, but it is particularly acute in southern Africa's communal areas. Other than the natural causes such a climate change and variabilities, anthropogenic rangeland degradation is caused by an interaction of biophysical, institutional and socio-economi factors. Furthermore, grazing and climate (precipitation and temperature), alone or in combination, are also frequently mentioned as the drivers o rangeland degradation. However, the impact of different drivers differ across agro-ecological zones. Hence, the need to understand the nature o rangeland degradation, the drivers responsible for degradation in specific areas, and how to respond to these drivers, especially in communal areas.

Table 1. Map of Mpumalanga province showing the different district municipalities.

The aim of this study is to:

1) determine the condition of communal rangelands and extent of rangeland degradation in different agro-ecological zones of Mpumalanga provinc
2) To determine the ecological and socio-economic drivers of rangeland condition and rangeland degradation among communal farmers in differen agro-ecological zones of Mpumalanga province.

Vegetation survey will be conducted using Line Point Index method. Cover abundance on six (6) communal rangelands comprising 2 open acces systems and 2 common property systems at each of the three agro-ecological zones (n = 24 communal farms). Vegetation parameter of importanc include; species composition (n), species basal cover (%), canopy cover (%) bare ground cover (%), veld condition score (%) and grazing capacit (ha/LSU).

The following parameters will be used as indicators to assess whether rangelands are in good condition or degraded. Socio-economic parameter driving rangeland degradation include; farmer's demographics, rangeland and livestock management practices, perception on the condition of thei rangelands, the extent of rangeland degradation, perception on drivers of rangeland conditions and degradation, and general challenges wit rangeland and livestock management in communal lands of the Mpumalanga province. This study will share light on the state of rangeland conditio and the extent of rangeland degradation in different agro-ecological zones of Mpumalanga Province. Furthermore, it will provide insight on areas o high rehabilitation and restoration priority in various agro-ecological zones of Mpumalanga Province.

ACKNOWLEDGEMENT:
I would like to thank DARDLEA and Dr. G.H Pule for the assistance

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