SASPP
SOUTHERN AFRICAN SOCIETY FOR PLANT PATHOLOGY

SA Plant Pathologist

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Editorial

One of the sessions at SASPP 2026 that I found the most interesting was on biosecurity and a question common to all presentations was: Are we prepared for the next invasion?

The recent emergence of Goss's wilt and leaf blight in South Africa has served as a timely and sobering reminder that plant biosecurity is not a distant, abstract concern, but an immediate and evolving reality. Once considered a disease largely confined to North America, Goss's wilt and leaf blight, caused by *Clavibacter nebraskensis,* was officially confirmed in South African maize systems in 2024, following reports of unusual symptoms during the 2023/2024 growing season. Its arrival raises fundamental questions about our preparedness, surveillance capacity, and regional coordination in the face of emerging plant pathogens.

What makes this case particularly disturbing is the speed with which its presence translated into economic and political consequences. Within weeks of official reporting to the International Plant Protection Convention, neighbouring countries including Botswana, Namibia, and Zimbabwe imposed temporary restrictions on maize imports from South Africa. Although these restrictions were later lifted, the episode highlighted the fragility of regional trade systems and the central role of phytosanitary trust in agricultural economies.

From a biosecurity perspective, the following key themes emerged:

1. **Detection versus identification**
   It is probable that Goss's wilt and leaf blight were present in South Africa long before their official confirmation. The symptoms overlap with those of other foliar diseases and abiotic stress, complicating diagnosis and delayed pathogen identification. This raises an uncomfortable question: how many other pathogens are already present but remain undetected? Strengthening diagnostic capacity remains a critical priority.
2. **The illusion of geographic containment**
   Historically, many plant diseases have been described as only occurring in a specific country. The spread of Goss's wilt and leaf blight challenges this idea. While seed transmission is considered relatively inefficient, the pathogen can move across landscapes via infected residues, wind-driven rain, and contaminated equipment. In a globalised agricultural system, where germplasm, machinery, and commodities move across borders, containment is rarely achieved.
3. **A window for proactive intervention**
   Unlike long-established endemic diseases, newly introduced pathogens offer a brief but valuable window for coordinated response. Encouragingly, South Africa has already mobilised a multi-stakeholder approach, including the establishment of a disease steering committee and the initiation of surveys . However, the effectiveness of such efforts depends on sustained investment and regional alignment. Once inoculum becomes widespread and entrenched in crop residues, as is typical for Goss's wilt, management will shift from containment to other practices.
4. **The limits of the current control strategies**
   The absence of effective chemical control options and the limited availability of resistant maize hybrids in South Africa is concerning. In many cases, our primary line of defence remains preventative: residue management, crop rotation, and hygiene. These are necessary but often insufficient when the disease pressure is high. The situation calls for accelerated breeding programmes, improved surveillance tools, and perhaps most importantly, a rethinking of how we integrate epidemiology, genomics, and agroecology into disease management frameworks.
5. **Regional biosecurity**
   The Goss's wilt and leaf blight outbreaks has shown the interconnectedness of southern African agricultural systems. Pathogens do not respect national borders, yet regulatory frameworks and response capacities are often fragmented. Temporary trade bans, while

understandable, are reactive measures. A more resilient approach would involve surveillance systems, shared diagnostic platforms, and coordinated risk assessments across the region.

Goss's wilt is unlikely to be the last "new" pathogen to emerge in South African agriculture. Climate variability, shifting production systems, and global trade will continue to reshape the plant disease landscape. The real question is not whether new incursions will occur, but how prepared we are to detect and respond to them. Biosecurity should not be viewed solely as a regulatory obligation, but as a dynamic, science-driven process that integrates research, policy, and practice. The arrival of Goss's wilt offers an opportunity to re-evaluate the robustness of our entire plant health system. If there is a single lesson to take forward, it is the following: "effective biosecurity is not defined by the absence of pathogens, but by the capacity to respond when they inevitably arrive".

Teresa Coutinho, University of Pretoria; teresa.coutinho@up.ac.za

Message from the President: Dr Cheryl Lennox

In this message, I would like to reflect on the theme of our recent SASPP congress," Ensuring a sustainable future through plant health", and expand on the link between plant health and ensuring a sustainable future. As Plant Pathologists, we are acutely aware that a sustainable future is fundamentally linked to plant health, as plants form the biological, ecological, and economic foundation of life on Earth. Healthy plants support food systems, ecosystems, and climate stability, all of which are essential for long-term sustainability.

If plants are diseased, food and feed supplies shrink, affecting nutrition and health; livelihoods suffer, creating economic stress that can worsen public health; and ecosystem balance is disrupted, changing disease dynamics.

Key links between plant health and a sustainable future include:

1. **Food security and nutrition**
   Healthy crops ensure stable and sufficient food production for a growing global population. Plant diseases and pests reduce yields, quality, and postharvest life, leading to food losses and malnutrition. Sustainable plant health management safeguards reliable, nutritious food supplies.
2. **Environmental sustainability**
   Plants drive ecosystem services such as carbon sequestration, oxygen production, soil stabilization, and water regulation. When plant health is compromised, these services decline, accelerating land degradation, biodiversity loss, and climate change impacts.
3. **Climate change mitigation and adaptation**
   Healthy plants absorb atmospheric carbon dioxide and help regulate global temperatures. Diverse and resilient plant systems are better able to withstand climate stressors such as drought, heat, and emerging pests and pathogens, supporting climate-resilient agriculture.
4. **Reduced reliance on chemical inputs**
   Sustainable plant health strategies—such as integrated pest management, biological control, and host resistance—reduce dependence on synthetic pesticides and fertilizers. This protects soil and water quality, conserves beneficial organisms, and reduces risks to human and animal health.
5. **Economic stability and livelihoods**
   Agriculture supports the livelihoods of billions of people worldwide. Plant health losses translate into economic instability, especially for smallholder farmers. Protecting plant health promotes resilient rural economies and reduces poverty.
6. **Biodiversity conservation**
   Healthy plants support diverse ecosystems by providing habitat and food for insects, animals, and microorganisms. Biodiversity, in turn, strengthens ecosystem resilience and sustainability.
7. **Human and animal health connections**
   Plant health underpins safe food systems and reduces exposure to harmful residues and mycotoxins. By sustaining ecosystems and reducing environmental degradation, plant health also lowers risks of disease emergence affecting humans and animals.

In conclusion, plant health is a cornerstone of sustainability. Without healthy plants, it is impossible to achieve long-term food security, environmental protection, climate resilience, or socio-economic stability—making plant health essential for a sustainable future. As Plant Pathologists, I think we often forget that what we do in our research and teaching programmes has a profound impact on the sustainability of the world. The theme of the 2026 Congress, "Ensuring a sustainable future through plant health", well-thought-out congress sessions, as well as the excellent presentations, reminded us of the role we play as Plant Pathologists.

SASPP 2026 rocked Umhlanga Rocks

54th SASPP Biennial Congress

Umhlanga Rocks set the stage for an unforgettable gathering of plant pathology excellence as the 54th Southern African Society for Plant Pathology (SASPP) Biennial Congress took place from 18–21 January 2026. Hosted by the University of KwaZulu-Natal, the congress drew a record-breaking 273 delegates, including 50 international participants and an impressive 103 postgraduate students.

Under the theme "Ukuqinisekisa Ikusasa Elisimeme Ngempilo Yezitshalo" (Ensuring a Sustainable Future through Plant Health), the congress delivered a dynamic and forward-looking programme. Seven world-class keynote speakers—Prof. Carolee Bull, Dr Eugene Rogozhin, Prof. Evariste Gueguim Kana, Dr Jesús Navas-Castillo, Prof. Mark Laing, Prof. Tafadzwanashe Mabhaudhi, and Prof. Georgios Vidalakis—brought global perspectives from the USA, Spain, Russia, and South Africa. The prestigious Vanderplank Memorial Lecture was delivered by Prof. Karen Garrett, while Dr Alan Wood presented the Doidge Memorial Lecture.

Cutting-edge plant health research was front and centre, tackling everything from pathogen identification and disease management to epidemiology, mycotoxins, and plant–pathogen–insect interactions. The introduction of biosecurity as a new focus area added fresh energy and urgency to discussions, reflecting the evolving challenges facing plant health globally. Just as importantly, the congress created a vibrant space for collaboration, idea exchange, and the strengthening of professional networks and friendships.

Beyond the formal programme, the congress experience was brought to life through a lively social programme. Delegates enjoyed a welcome function featuring traditional African dance and beer (umqombothi), a relaxed braai and bunny chow evening, a spirited quiz night, and a "lekker" Durban-themed gala dinner; ensuring plenty of moments to connect, celebrate, and unwind.

Excellence was firmly in the spotlight, with postgraduate students Nhlonipho Ngubane, Raven Wienk, Jos Jansen van Vuuren, and Alishia van Heerden earning top honours for their presentations and posters. Prestigious SASPP society awards were also presented to Dr Huibrecht Schreuder, Dr Providence Moyo, Dr Wilma Nel, Prof. Lindsey du Toit, Dr Belinda Janse van Rensburg, and Prof. Altus Viljoen, recognising outstanding contributions to the field.

With its record attendance, high-impact science, and vibrant atmosphere, SASPP 2026 set a new benchmark for the society. The momentum is already building for the next Biennial Congress in 2028 in the Western Cape.

Benice Sivparsad and Augustine Gubba
SASPP 2026 LOC (UKZN)

Delegates of the 54th SASPP Biennial Congress

Dr Cheryl Lennox (SASPP President), together with members of the Congress Local Organising Committee from the University of KwaZulu-Natal: Prof. Augustine Gubba, Dr Nokwazi Mbili, Dr Benice Sivparsad, and Prof. Kwasi Yobo

SASPP Society Awardees: Dr Huibrecht Schreuder, Dr Providence Moyo, Dr Wilma Nel, Prof Lindsey Du Toit, Dr Belinda Janse van Rensburg, Professor Altus Viljoen (with Dr Cheryl Lennox (President of SASPP), Dr Gert van Coller (Treasurer of SASPP) and Dr Lindy Rose (Secretary of SASPP)

SASPP Congress Awardees: Nhlonipho Ngubane, Raven Wienk, Jos Jansen van Vuuren, Alishia Van Heerden with Dr Cheryl Lennox (President of SASPP) and Prof Gus Gubba (Chair of LOC)

Christiaan Hendrik Persoon Gold medal: recipient: Prof Lindsey du Toit

Prof du Toit, a South African-born scientist, has made an indelible mark on the field of plant pathology, with her early academic training at the University of Natal, Pietermaritzburg, where she earned a BSc (cum laude) in Microbiology and Plant Pathology (1991) and a BSc Honours in Plant Pathology (1992). These formative years in South Africa laid the foundation for an illustrious international career. Despite being based abroad, she has maintained significant scientific engagements and collaborations within South Africa, strengthening the country's agricultural research and development.

She is and has been a member of SASPP for a number of years (joined as an honours student) and presented keynote addresses at congresses. Her contributions to South African science include her tenure as an Associate Professor Extraordinary in the Department of Plant Pathology at Stellenbosch University (2011-2014). During this period,

she provided mentorship, collaborative research opportunities, and knowledge transfer in seed pathology and plant disease management - key areas that influence South Africa's agricultural sustainability. She has actively collaborated with South African scientists and institutions, addressing plant disease challenges that impact crop production, food security, and economic stability.

A key area of Prof du Toit's contributions has been her extensive work with the South African onion industry. Her research on onion diseases, particularly bacterial and fungal pathogens affecting bulb quality and seed health, has provided invaluable insights for South African growers and seed producers. Through collaborations with local researchers and industry stakeholders, she has contributed to improving disease diagnostic methods and developing management strategies tailored to South African growing conditions. Her expertise in seed pathology has also been instrumental in guiding South African seed health regulations and best practices, ensuring high-quality onion seed production that supports both local consumption and export markets.

Beyond her direct impact on South African agriculture, Prof du Toit has played a prominent role in the American Phytopathological Society (APS), one of the world's leading plant pathology organisations. She has served in multiple leadership roles within APS, including on the APS Council, and has contributed significantly to global initiatives in plant disease research and education. Her leadership in APS's seed pathology initiatives has fostered international collaboration, benefiting South African plant pathologists through access to cutting-edge research, training, and networking opportunities. By actively promoting knowledge exchange between APS and South African institutions, she has strengthened the country's integration into the global scientific community.

Prof du Toit's research has been pivotal in developing sustainable disease management strategies for high-value crops, including onions, carrots, spinach, and brassicas—many of which are vital to South African agriculture. Her extensive publication record and leadership in seed pathology have significantly contributed to advancing South Africa's capacity in plant disease diagnostics and management.

Beyond her scientific excellence, Prof. du Toit has been a dedicated mentor to students and early- career researchers in South Africa and globally. Her guidance has empowered the next generation of plant pathologists, ensuring that South Africa benefits from world-class expertise in plant disease management.

In light of her sustained contributions to South African science, agriculture, and academia, Prof Lindsey du Toit was awarded the Persoon Gold medal. Her work exemplifies the highest standards of scientific excellence and dedication to addressing critical challenges in South African and global agriculture.

Teresa Coutinho, University of Pretoria

In Memoriam: JJ (Kobus) Serfontein

The plant pathology community recently lost another valuable member with the passing of Kobus Serfontein. Kobus grew up in Pietersburg (now Polokwane), where he also attended school. He attended Pretoria University for his pre-graduate studies before moving to Stellenbosch for his postgraduate studies. He did his MSc study on *Pseudomonas* diseases of tomato under the guidance of Prof Martin Hattingh at the Department of Plant Pathology.

Kobus started his MSc with several compatriots who would later become friends and colleagues. These included Wouter Schreuder, Suzel Orffer and Pedro Crous. According to Pedro it was during their numerous field trips that the sparks started flying between Suzel and Kobus. This ended up in them getting married and their marriage was an example to all.

Like many other plant pathologists in South Africa, Kobus started his professional career at the ARC. He headed up the Bacteriology unit at ARC-PPRI at Roodeplaat where he worked alongside Suzel and Dr Glynnis Cook. After his military service, Pedro Crous also started working at the ARC Roodeplaat. He recalls from that time how often he got invited by Kobus and Suzel to a braai over weekends that turned into a highlight of the weekend. Glynnis recalls the contribution of Kobus in establishing the foundation of the Bacteriology Unit, which is still going strong to this day. She also fondly remembers how Kobus was always ready with a friendly greeting in the morning and a willingness to help wherever he could.

After leaving the ARC, Kobus and Suzel teamed up with Dr Fanus Swart and started QMS AgriScience in 2000. Together, they built QMS into a well-known agricultural service provider, providing essential services to various industries. Fanus remembers Kobus as an honorable man, deeply religious, dedicated to ethical, credible science, and his family. He also valued Kobus for his ability to find solutions to difficult problems in a focused manner, while having the ability to explain his findings in an understandable manner.

In 2013 Kobus moved on from QMS and relocated to Stellenbosch from Tzaneen. Here he joined ICA International Chemicals, teaming up with former student friend, Wouter Schreuder. At ICA he was valued for his wealth of knowledge and the great contribution he made to the company on various levels. Kobus also stood out for his great sense of humour and for always treating all colleagues with respect. On a personal level, I met Kobus (and Suzel) in 2007 when I joined Westfalia Fruit Estates in Tzaneen as a plant pathologist. From our first meeting, they went out of their way to make us feel welcome in the new town and province, and over time, they became great friends and surrogate grandparents to our children. Our friendship continued when we also moved to Stellenbosch in 2016. I fondly remember all the “stoep kuiers” at their homes in Tzaneen and later Stellenbosch. Kobus was to me a mentor, teaching me about working in industry, and was a great source of knowledge. He never hesitated to share his experience and knowledge, and we could discuss many topics over a glass or two of good wine.

We will therefore always remember Kobus as an extremely knowledgeable plant pathologist whose contributions to science spanned industries and levels. We will also remember how freely he shared his knowledge and how dedicated he was to ethical science. As a person we will remember him for his kindness, wisdom, humour and love, of people. Rest in peace my friend, we will miss you.

Dr Jan van Niekerk (contributions by Drs Fanus Swart, Wouter Schreuder, Glynnis Cook and Prof Pedro Crous)

Profile of a Plant Pathologist: Prof Willem Boshoff

Current position: Professor at the Department of Plant Sciences, Division Plant Pathology, University of the Free State

Tell me about your research:
Upon my appointment at UFS in 2017 I was tasked to continue and expand research on rust diseases with emphasis on their control in field crops. I have over the last nine years extensively studied and contributed to research outputs on the pathogenic variation of rust pathogens occurring on winter- and summer grown cereals. Rust pathogens are known for their ability to evolve and spread over long distances and thereby posing a continuous threat. Regular rust monitoring studies and early warning about changes in virulence or new incursions remain important. My research also includes projects involving the identification, characterisation, and genetic analysis of existing and new sources of genetic resistance to the rusts.

Why is your research important?
For winter cereals I do assist breeders in evaluating their cultivars and advanced breeding lines for rust resistance. This is annually updated for new releases as well as for current cultivars when a new race(s) of a particular rust pathogen is detected. The latest cultivar response data is annually shared with breeders and producers. This allows for risk management in cultivar selection and timely application of fungicides on susceptible cultivars in high-risk areas or seasons with a high rust incidence. From my research I can

also advice breeders on the use and deployment of genes for rust resistance and thereby contributing to combat the rapid evolution of rust fungi.

What is your favourite aspect of your research?
Working with plants and rust fungi in the greenhouse and in field trials is always a welcome break from the office. To me research is extremely rewarding when a manuscript is accepted for publication, when establishing new collaborations or when sharing knowledge with extension officers and producers during information days or through the popular media.

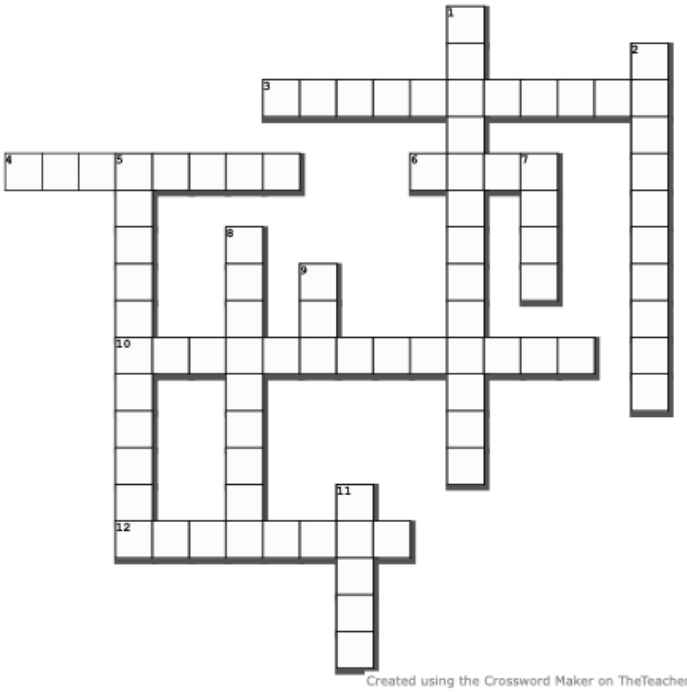
What excites you about your research?
The opportunity to make a difference through gathering and sharing of knowledge. To guide students, see them developing from undergraduates to postgraduates and eventually get employed.

Tell me about what you like to do when you aren't working
Family time is special or just relaxing at home working in my garden and the opportunity to grow my own vegetables. I will never decline a break to walk through the neighbourhood, do a parkrun, a day out fishing or a round of golf.

Name:_____

wither or not

Complete the crossword puzzle below



Created using the Crossword Maker on TheTeachersCorner.net

Across

3. pathogen that kills host tissue before feeding
4. plant extracellular compartment where many bacterial pathogens live
6. obligate fungal disease producing urediniospores
10. lifestyle exploiting weakened hosts or changing environment
12. secreted pathogen molecule that manipulates host physiology

Down

1. bacterial communication via diffusable signals
2. root surface colonised by microbes
5. microbial habitat on leaf surface
7. Virulence mechanism used by Gram-negative plant pathogenic bacteria
8. bacterium living inside plant tissue without symptoms
9. movement of genes between organisms without reproduction
11. molecule produced by pathogens that damage host cells