

SASTA Newsletter

Newsletter of the South African Sugar Technologists' Association

December 2025



Some SASTA Councillors at the 2025 congress.



HIGHLIGHTS FROM 2025

As we conclude another productive year, this newsletter provides an overview of SASTA's key activities, progress, and priorities throughout 2025. We extend our sincere appreciation for your engagement and commitment to the sector.

Best wishes for a safe, restful, and enjoyable festive season.



A Word from the SASTA President

This year has been one of great momentum for SASTA, shaped by a growing sense of unity, renewed engagement across disciplines, and an expanding vision for the future of the South African sugarcane industry.

At last year's AGM, I shared three personal objectives for my tenure: to help reduce the silos within our industry; to nurture an environment of trust where the "elephants in the room" can be addressed honestly; and, to align SASTA more closely with the direction in which our sustainability journey must travel to a reimagined industry. As much as these goals continue to be a work in progress, I will take the small wins along the road as markers of the success we are achieving.

Through the leadership, dedication and perseverance of SASTA Councillors, much has been achieved over the past year:

- A highly successful **annual Congress** with increased factory participation, resulting in a more balanced and comprehensive scientific programme, covered in great detail in our last newsletter (see [October 2025 newsletter](#).)
- A series of successful **field and factory days** (see page 5).
- Stronger momentum from SASTA's **Factory Control Advisory Committee** supported by renewed miller involvement.
- A detailed **gap analysis of factory control methods**, which paves the way for updating the online laboratory manual.
- Active participation in the **International Society of Sugar Cane Technologists (ISSCT) Centennial Congress** in Colombia, and significant representation on ISSCT Council (see page 3).
- Formation of a SASTA **100 Year Sub-committee** to continue preparations for our centenary celebrations in 2026; and a **Sustainability Sub-committee** to reflect the industry's need for clarity and leadership in this space, especially as sustainability increasingly encompasses more than "green economy" concepts.

I must express a huge "Thank You" to everyone involved in SASTA Council and the various sub-committees for their tireless efforts which brought much reward over the past year.

Despite the many successes, SASTA cannot afford to be complacent. We must recognise that we are still an industry grappling with significant challenges and, to not mince my words, holding on by the skin of our teeth in some instances. We must acknowledge the leadership provided by our principals in helping the industry navigate these difficult times.

SASTA concludes the year with tangible progress, strengthened industry relationships, and a clear line of sight towards our centenary milestone in 2026. While the broader industry continues to face substantial pressure, our commitment to shared knowledge, collaboration, and innovation remains steadfast. We move forward with humility, determination, and a renewed belief in what we can achieve together.

Muhammad Kadwa
SASTA President



ISSCT Congress highlights

Dr Sandy Snyman (SASTA Vice-president)

The XXXII ISSCT Centennial Congress and Pre-Congress Tour was held in Cali, Colombia, between 22 and 28 August 2025. The Congress was attended by 1,100 delegates from more than 40 countries, and the scientific programme comprised five parallel sessions. The technical programme consisted of 290 oral and poster papers across 10 disciplines: Agronomy, Agricultural Engineering, Germplasm & Breeding, Entomology, Molecular Biology, Pathology, Processing, Engineering, Co-products, and Management. An impressive trade exhibition showcased the latest innovations by more than 70 leading technology provider companies.

The Colombian sugarcane agro-industry is a similar size to the South African sector with the exception of ethanol production:

- 2024 figures: 15 mills crushed 22.1 million tons of sugarcane from 239,472 ha under cane;
- Production figures: 2 million tons sugar, 184 000 tons molasses, 406 million L bioethanol, 1,876 GWh electricity, 6.3 million tons bagasse used for co-

gen and paper production, 322,000 metric tons of organic fertilisers.

The South African delegation to the Congress consisted of members from South African Sugar Technologists' Association (SASTA), South African Sugarcane Research Institute (SASRI), South African Cane Growers' Association (SACGA), Sugar Milling Research Institute (SMRI), Illovo Sugar Limited (Illovo Sugar), Vision Sugar (Vision Sugar), Umfolozi Sugar Mill (USM), and Bosch Projects.

The Congress was preceded by a pre-congress tour on 22 and 23 August to the Colombian Sugarcane Research Center (Cenicaña) and the miller-cum-planter groups Manuelita, Mayagüez, Incauca, Providencia and Risaralda.

As the ISSCT celebrated its centenary, each commission reviewed milestone achievements and acknowledged the contributions of three scientists per 25-year period. The South African scientists that were recognised are listed in the table below.

Prominent contributors & Honorary members – South Africa

Name	Period	Category
K. Douwes-Dekker	1950-1974	Factory processing
C Whitehead	1950-1974	Management
J Wilson	1950-1974	Management
A.G. de Beer	1975-1999	Agric Engineering
A. J. M. Carnegie	1975-1999	Entomology
P. Rein	1975-1999	Factory Engineering
G. Platford	1975-1999	Management
R. Lionnet	1975-1999	Management
R. van Antwerpen	2000-2023	Agronomy
S. R. Rutherford	2000-2023	Entomology
A. Wynne	2000-2023	Management
A. Jumman	2000-2023	Management
T.G. Cleasby	1983 to current	Honorary life member
T. J. Murray	2019 to current	Honorary life member
H. H. Dodds	1965	Honorary life member
J. L. du Toit	1974	Honorary life member
G. D. Thompson	1992	Honorary life member
T.J. Murray	2010-2016	Chairperson
P. Rein	1999-2001	Chairperson

Dr Carnegie receives posthumous ISSCT 2025 medal



During the ISSCT Congress in Cali, Colombia in August 2025, South African technologists were awarded over a dozen commemorative medals. A posthumous medal was given to Dr. Alastair Carnegie for his work in entomology which was presented to his wife, Phoebe by Dr Sandy Snyman (Vice-president SASTA), to be displayed at SASRI to inspire future entomologists.

Thomas Geoffrey “Geoff” Cleasby received his medal from SASTA President Dr Muhammad Kawda in October 2025, with the full article available in the [October newsletter](#).

2022–2024 Jubilee Winners reflect on ISSCT Congress

The SASTA Jubilee Award celebrates the top agriculture and factory papers presented across the three most recent SASTA Congresses, with winners going on to represent SASTA at the ISSCT Congress. For 2022–2024, the honour went to Sharon McFarlane and Darius Bezuidenhout for their outstanding contributions.



Sharon McFarlane.

It was a wonderful surprise to receive the SASTA Jubilee Award which afforded me the privilege of attending the 2025 ISSCT Congress in Colombia. This year the ISSCT celebrated their 100-year anniversary, making attendance particularly special.



Darius Bezuidenhout.

I had the privilege of attending the ISSCT Congress in Cali, Colombia in August 2025, an event that truly embodied its theme: Digital. Innovative. Sustainable. With over 1,100 delegates from 40 countries, the scale and diversity were impressive. The factory and co-products sessions stood out for me, featuring 67 papers and 17 posters.

Academic sessions celebrated 100 years of factory processing and engineering, with notable South African contributions – 14 South African papers and posters in total – and it really hit home how much the South African industry has contributed over the years. Cutting-edge topics like Industry 4.0, machine learning, and generative AI were also prominent and particularly engaging.

A personal highlight was presenting on Energy Savings Utilising Dimple Tube Technology, which sparked excellent engagement and follow-up discussions. Beyond the technical content, the event offered invaluable networking opportunities and showcased meaningful collaboration with Central America, reinforcing the global nature of our industry.

The congress reaffirmed that innovation and sustainability are driving forces in sugar technology – and that the South African industry and SASTA are proudly contributing to that future. I am also looking forward to the 100th year of SASTA, a similarly remarkable milestone.

A massive thank you to SASTA for the Jubilee Award and for this opportunity to attend the ISSCT – it has been an unforgettable experience.

Highlights included our visit to the Colombian Sugarcane Research Centre (Cenicaña) as part of the pre-congress tour. Here, Cenicaña showcased their research on growing, harvesting and milling the crop, along with their development of high-value products from sugarcane biomass. Their biodiversity and knowledge exchange programmes were also impressive. The following day we visited Incauca, a miller-cum-planter estate and factory, where we were taken through the benefits and challenges of their highly mechanised approach to sugarcane production.

At Congress, the plenary sessions covered a range of interesting topics including advances in molecular biology, embracing artificial intelligence, and strategies to mitigate and adapt to the impacts of climate change on sugarcane production.

The pathology session was introduced with an excellent overview of the progress made in the field of sugarcane pathology over the past 100 years. Those pathologists who made significant contributions to the understanding, diagnosis and management of sugarcane diseases over this period were acknowledged. Presentations on orange rust, sugarcane smut, novel diagnostic methods, and seedcane production were of particular interest. One of the best aspects of the congress was meeting with international pathologists and discussing the common and sometimes unique sugarcane disease challenges faced in the different countries.

The contacts made at these events are invaluable. Thank you to SASTA for the opportunity of attending this important event.

SASTA Field and Factory Visits

In line with our commitment to knowledge sharing and industry collaboration, SASTA has enjoyed a productive year of field and factory visits.

Our most recent visit, in August 2025, took members to Union Co-Op Limited (UCL)'s advanced Avocado Packaging Plant. The tour offered valuable insight into the company's highly efficient and sustainable operations.



Led by Clinton Vermeulen, General Manager: Operations (Manufacturing), members explored the facility's innovative processes and technology. The avocado packhouse is a recent addition to UCL's diverse agricultural portfolio, which also includes a sugar factory, sawmill, wattle factory, animal feed production (from bagasse and molasses), and nearly 500 hectares of avocado orchards. UCL's avocado output is now roughly similar to the entire output of the rest of KZN.

In addition to servicing UCL's own production, the facility also packs for Halls, The Fruit Farm Group SA, and Westfalia, providing flexibility for outgrowers in choosing exporters. Operations are seamlessly integrated, from the use of power generated by UCL's sugar mill to the efficient logistics system that delivers, collects, and scans bins directly into the facility.

During the visit, members observed the cutting-edge technology in action, including a high-speed imaging system that captures 200 photos per fruit in a single second and detects imperfections beneath the skin, as well as an automated carton delivery system that supports an impressive throughput of 25 tons per hour.

SASTA extends sincere thanks to UCL for hosting this visit and to Clinton Vermeulen for sharing his time and expertise.

Earlier in the year, SASTA members also visited a range of other leading facilities, including:



[Foskor – November 2024](#)



[Rossi – May 2025](#)



[Bell Equipment – May 2025](#)



[Donovale Farming Company – June 2025](#)



[SASRI 100-Year Anniversary – July 2025](#)

Each visit offered valuable learning opportunities and strengthened our connections across the sugar industry and beyond.

We look forward to another year of informative visits in 2026. If you know of a worthy field or factory day, please send us the contact details.

PRIZE WINNERS

2025 SASTA CONGRESS

AGRICULTURE AWARDS

Poster Prize

Position First Prize

Author/s **Robyn Jacob**, S Singh, and S Joshi

Poster title Identification and Validation of Molecular Markers for Resistance to *Eldana saccharina* Walker (Lepidoptera: Pyralidae)



Position Highly Commended

Author/s **Sinenhlanhla Radebe**, S McFarlane, R Stranack, I Thompson, R Maduray, J Torlage, J Edmonds

Poster title Creating A Multi-User Digital Data Collection System for Ratoon Stunt (RSD)



Student Award

Position First Prize

Author/s **Tumo Makhetha**, S Joshi, E Albertse and M Ghai

Poster title Analysing The Expression of Insecticidal Proteins in Genetically Modified Sugarcane



Kynoch Award

Position Tie First

Author/s **Phillemon Sithole** & D Clark

Poster title Characterising Past Climate Change in the South African Sugar Industry: Preliminary Findings for Temperature and Rainfall, 1980–2024



Position Tie First

Author/s **Ingrid Thompson**, R Stranack, S McFarlane, I Basdew, S Merile, T Velem

Poster title Introducing Digital Data Collection for Biosecurity Surveys at the South African Sugarcane Research Institute (SASRI)



Kynoch Award	Position	Highly Commended	
	Author/s	Natalie Hoffman , D Clark, M Kadwa, A Paraskevopoulos, R van Heerden, D Wilkinson and P Botha	
	Poster title	A Data-Driven Approach to Support the On-Farm Management of Sugarcane Varieties in The KwaZulu-Natal Midlands Region.	

FACTORY AWARDS

Poster Prize	Author/s	S Ngcobo, Anayshree Naicker , Y Naidoo, D Walthew, N Myeza	
	Paper title	The Analysis of Lime on Melt by Double Alkalinity Titration	

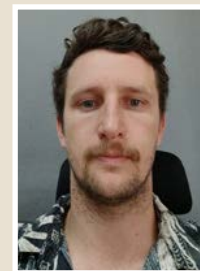
Operational Paper Award	Position	First Prize	
	Author/s	Mduduzi Dlamini , M Dlamini, R Kugara, T Kunene	
	Paper title	The Benefits of Installing Mud Belt Filters in Simunye Sugar Mill in the 2024/25 Crushing Season	
	Position	Highly Commended	
	Author/s	Charel Wilke , F Marais, B Rawlins	
	Paper title	Boiler Equipment: Typical Anomalies and Their Efficiency Consequences	

Cecil Renaud Prize	Author/s	Nishan Maharaj , J Reddy, Z Rambukus	
	Paper title	Killing-the-Joule: Enhancing Energy Efficiency Through Strategic and Practical Initiatives at Hulett Refinery	

Robin Renton Memorial Award

Author/s **Brad Rawlins**, F Marais, E De Villiers

Paper title CFD Study on Bagasse Spreader Airflow and Deflector Plate Configurations: Impacts on Fuel Distribution and Boiler Performance



Talbot-Crosbie Prize

Position **First**

Author/s **Brad Rawlins**, F Marais, E De Villiers

Paper title CFD Study on Bagasse Spreader Airflow and Deflector Plate Configurations: Impacts on Fuel Distribution and Boiler Performance



Position **Highly Commended**

Author/s **Darius Bezuidenhoudt**, M Stevens, W Yeo, M Gokool

Paper title Energy Savings Utilising Dimple Tube Technology



Position **Highly Commended**

Author/s **Sayed Rahiman**, Y Mbuthuma, D Love, S Davis

Paper title A Review of Sucrose Solubility in Impure Cane Sugar Solutions Used in Raw Sugar Factory Pan Stations



Papers marked with ★ have been nominated for the 2025–2027 Jubilee Award

SASTA Council 2025/2026



Dr Muhammad Kadwa

PRESIDENT

(Manager: Industry Affairs,
SA Canegrowers Association)



Dr Sandy Snyman

VICE-PRESIDENT

(Programme Manager: Variety
Improvement, SASRI)



Dr Nkosinathi Vincent Ndinisa

TREASURER

(Lead Process Engineer, SMRI)



Dr Sumita Ramgareeb

CONGRESS ORGANISING CHAIR

(Resource Manager: Breeding and Field
Services Resource Unit, SASRI)



Shaun Madho

(Process Specialist, ABF Sugar)



Dr Lawrence Malinga

(Programme Manager:
Crop Protection; Senior Research
Entomologist)



Dr Deborah Sweby

(Resource Manager: Crop Biology
Resource Centre, SASRI)



Warren Lawlor

(Group Capex Executive: RCL Foods)



Steve Davis

(Head: Sugar Technology, SMRI)



Gavin Smith

(Sugar Processing Consultant,
G Smith Consulting)



Gonaseelan Naidoo

(Industry Operations Director, SASA)



Malesedi Moletsane-Mbuyazi

(Sugar Process Consultant, SMRI)



Sharon McFarlane

(Plant Pathologist, SASRI)



Dr Shailesh Joshi

(Senior Plant Breeder, SASRI)



Phindile Miya

(Chemical Engineering Specialist,
Tongaat Hulett)



Dr Ruth Rhodes

(Extension Specialist, SASRI)



Nico Stolz

(Specialist Engineer, RCL Foods)



South African Sugar
Technologists' Association

Turning 100 in 2026!

a century of scientific exchange

In 2026, the South African Sugar Technologists' Association (SASTA) celebrates a century of advancing science and innovation in the local sugar industry.

For the past 100 years, SASTA has been at the heart of the sugar industry, bringing together industry professionals through world-class congresses and related events, sharing knowledge, building networks, and enhancing progress from field to factory.

Watch this short message from our President, Muhammad Kadwa, as we look forward to a milestone year of celebration, collaboration, and continued excellence.



Join us on this journey as we reflect on our legacy and look ahead to a vibrant future.