SOUTH AFRICAN SUGAR TECHNOLOGISTS' ASSOCIATION

INSTRUCTIONS FOR AUTHORS

SASTA CONGRESS 2022

The 94th SASTA Congress will be held at the ICC, Durban from 16 - 18 August 2022, subject to the status of the Covid-19 pandemic.

DEADLINES FOR AUTHORS

Abstract Submission

SASTA Abstracts will be submitted online. This can be done either via the SASTA website www.sasta.co.za or via the link in the "Call for Abstracts" email. Abstracts of 250 words maximum must be submitted **by 28 January 2022**.

The author will be required to sign a CONSENT TO PUBLISH form.

The abstracts can be for:

- Full-length Papers
- Review Papers
- Operational Papers (Factory only)
- Short Communications (Agriculture and Factory)
- Posters
- Commercial presentations
- "Practical Success stories" (Agriculture only)

Submissions in the first five categories above will form part of the published Proceedings. Submissions in the last two categories above will not be included in the published Proceedings, but the titles will appear in the programme, and abstracts/summaries will be included in the Abstract booklet.

Authors will be notified of Abstract acceptance by **14 February 2022**.

For **general queries regarding SASTA papers** please contact the SASTA Administrator at sasta@sugar.org.za.

For **specific queries regarding the online submission process** please contact:
Kerry Firmani: KerryF@turnersconferences.co.za +27 31 368000

Manuscript Submission

NOTE: Only those manuscripts submitted by the deadline dates will be guaranteed publication in the Congress Proceedings. The Editorial Committee reserves the right to reject papers submitted after the deadline dates.

Authors whose Abstracts are accepted will receive an email with detailed instructions on how to submit their manuscripts online.

Full papers: must be submitted **by 4 April 2022.** Full papers will be subject to a peer review process (two referees per paper). Editing and formatting for stylistic purposes will also be conducted.

Review papers: must be submitted **by 4 April 2022.** Review papers will be refereed and edited as for Full papers.

Operational papers (Factory only): must be submitted **by 4 April 2022.** Operational papers will be refereed and edited as for Full papers.

Short Communications (Agriculture and Factory): must be submitted **by 4 April 2022**. Short Communications will undergo a peer evaluation to ensure scientific rigour and be edited. Note: Short Communications must comply with the Guidelines described in the 'Instructions for Authors' or they will be rejected.

Posters: a Poster summary must be submitted **by 25 April 2022**. This should be in the form of an extended Abstract of 500 - 600 words. Poster summaries will be included in the Proceedings. The poster must be displayed **from 16 August 2022 until the end of Congress.** Authors may be required to make a short presentation and be in attendance at their posters during scheduled poster viewing times.

Commercial presentations: A 250-word summary or abstract (if different from the original abstract submitted) must be submitted by **25 April 2022.** These will be edited and formatted for stylistic purposes (for inclusion in the Congress booklet).

Practical Success Stories (Agriculture only): A short (250-word) summary (if different from the original abstract submitted) describing the success story or innovation must be submitted **by 25 April 2022.** These will be edited and formatted for stylistic purposes (for inclusion in the Congress booklet).

On acceptance of the submitted manuscript by SASTA, the presenting author will be required to submit a biography/very brief CV (4-5 lines maximum) and a "head and shoulders" photograph of the presenting author. This will be included in the Congress booklet. Authors will also need to sign a "consent to publish" form.

Correspondence and Information

All queries and further information regarding the manuscript submission process may be sent to:

Kerry Firmani: KerryF@turnersconferences.co.za +27 31 368000

94th SASTA CONGRESS

GUIDELINES FOR FULL PAPERS

1. MANUSCRIPTS

Full papers will be subject to a peer evaluation process. Two referees will assess each paper. The author is responsible for making all changes and additions suggested by the referees/editors. Should the author disagree with the suggestions they must respond in writing.

2. LAYOUT & HEADINGS

Authors should consult the sample manuscript available on the SASTA website for details of style that are not described below.

Scripts must be written in English and in the third person. The font must be Arial, size 11. The page format is A4, single-spacing with a 25 mm margin all round. Pages are numbered consecutively at the centre bottom of the page. Do not use any design - style formatting, or automatic referencing software, or automatic Figure numbering.

The sequence of items in the script shall be:

Title: This must be informative and concise, followed by the authors' names and addresses (including email address). The authors' names should appear as a list with first names as initials only (appearing after the surname). The last two authors are separated by "and". If an author's current address has changed from that where the work was carried out, both addresses should be included.

Abstract: This should be 250 words maximum. It should state the rationale, findings and conclusions of the study. It should contain no discursive matter, no references and no illustrations.

Keywords: Six keywords are required. The selection of these is vital because the search engine will use these to identify your area of research.

Main Text: The main text must be divided into sections such as: Introduction, Materials and Methods or Procedures, Results, Discussion or Conclusions. These headings should be centred. In addition, side sub-headings (in italics) may be used. Only one space should be inserted between the heading and the text. All paragraphs should be fully justified with no type of indenting. Lower case letters should always be used, except for the initial letters of first words and proper nouns.

Acknowledgements: (if any)

References: Literature cited must be arranged alphabetically. References in the text are given as Jones (1996) or (Jones, 1996) depending on context. For two authors both names should be cited (Jones and Smith, 1996). Where there are several authors the citation should be written in the text as (Jones *et al*., 1996) but the complete reference with all authors names should be given in the REFERENCES. When citing several papers by the same author published in the same year, a, b, c, etc., should be placed after the year of publication. Each citation in the

reference list should include the names of all authors, the year of publication, complete title, publisher, publication, volume number, issue number in brackets and inclusive page numbers, e.g.

Barnes, AC (1964). *The Sugarcane.* Leonard Hill, London, 456 pp.

De Beer, AG (1976). An inexpensive mechanical harvesting system that works. *S Afr Sug J* 60(3): 111-112

Abbreviations for periodicals should be as quoted in the *World List of Scientific Periodicals.* References not cited in the text should not appear in the list of references and *vice versa.*

Unpublished data and verbal communications should not appear in the reference list but should appear in brackets in the text, e.g. ([1]personal communication) or ([1]unpublished data). A footnote must be included indicating the name and contact details of the individual cited. Similarly, website references should appear in brackets in the text only and not in the reference list. These references must contain the website address and author/title of article where appropriate.

Only papers accepted for publication or published may be cited (not those that have only been submitted)

Photographs and Images: Submit in .jpg format.

Tables: Tables should be numbered in Arabic numerals with a concise and descriptive legend at the head. They should be cited in the text in a sequential order. Tables are to be inserted into the body of the text where the author wishes to have them displayed. The description of the table in the Results section should not repeat the results of the table but can draw attention to particular or general features of them.

Figures: Figures should be self-explanatory and contain as much information as is consistent with clarity. Figure legends should be placed below the Figure and should contain sufficient explanation to be meaningful without cross-referencing. A description of the symbols used in the figures should be written out in full. Subdivisions within figures should be labelled with lower-case letters, e.g.: a, b and c, etc. and these should also be used in the figure legends and the text. Figures should be cited in the text using Arabic numerals and are to be inserted into the body of the text where the author wishes to have them displayed.

*** NEW ***

Abbreviations and Acronyms: Please refer to the Appendix at the end of this document for a comprehensive list of SASTA standard Abbreviations and Acronyms.

3. ACCEPTANCE

The Editorial Committee reserves the right to reject any paper. Papers read at the Congress will not necessarily be published in the Proceedings.

94th SASTA CONGRESS

GUIDELINES FOR REVIEW PAPERS

Review articles will be considered for publication in the Congress Proceedings. Reviews should be critical up-to-date surveys of important developments in a subject of active current interest. They should be no more than 6 000 words and may include limited Tables and Figures. The general script format will be the same as that described for Full papers. Please refer to Full paper guidelines for details.

Reviews will be subject to the same peer evaluation process as described for Full papers.

94th SASTA CONGRESS

GUIDELINES FOR OPERATIONAL PAPERS (FACTORY SESSIONS ONLY)

Operational papers are intended for non-scientific factory work or experiences and will be considered for publication in the Congress Proceedings. While these papers do not require a detailed literature study, consultation of the known literature is strongly encouraged to lend credence to the work. The general script format will be the same as that described for Full papers. Please refer to Full paper guidelines for details.

Operational papers will be subject to the same peer evaluation process as described for Full papers.

94th SASTA CONGRESS

GUIDELINES FOR SHORT COMMUNICATIONS

Short Communications are non-refereed papers that provide a concise description of an independent line of research. They are intended to encourage the publication of exciting new findings that may be suitable to submit to a refereed Journal on completion of further research. Short Communications are not refereed but will undergo some peer scrutiny and technical editing.

A short summary or abstract of 250 words maximum is required to indicate intent to submit. In addition, an Abstract must accompany the completed Short Communication on submission. This abstract will be included in the Congress Abstract booklet.

A Short Communication can include up to a maximum of two tables and/or figures. Short Communications may be no longer than:

1 800 words without tables or figures/photos

1 500 words with one table or figure/photo

1 200 words with two tables, one table and one figure, or two figures/photos

The maximum word count limits include the abstract and body of the communication, but exclude the titles, author's names and addresses and the References. Keywords are required. The use of sub-headings in the body of the communication is at the author's discretion. These guidelines must be strictly adhered to or the paper will be rejected.

The words: 'SHORT COMMUNICATION' must appear above the title.

Please refer to the guides under 'FULL PAPERS' for details regarding format and layout of submissions. A sample Short Communication is available on the SASTA website.

94th SASTA CONGRESS

GUIDELINES FOR POSTER PRESENTATIONS

Posters are encouraged by SASTA as an effective means of presenting information. Poster summaries will be published in the Proceedings and the electronic version of the posters will be made available on the SASTA website. Should the Editorial Committee receive more paper submissions than can be accommodated in the Congress programme some papers may be converted to poster presentations.

1. SUBMISSION

A 500 - 600 word poster summary must be submitted. The words **'POSTER SUMMARY'** must be inserted above the title.

2. PRESENTATION

2.1 Poster board space 2 380 mm high by 950 mm wide will be available for each poster. Double sided mirror tape will be supplied to mount them.

2.2 Posters should measure 1 180 mm high by 840 mm wide (A0 page size) with portrait orientation.

2.3 In addition to good scientific content, three basic criteria are required for an effective display: it must be attractive, well organised and self-explanatory. Authors are free to use their creativity to produce attractive posters.

2.4 The title and author's name should be displayed at the top of the poster in a single row. A small photograph of the author can be included to assist the delegates in contacting the author.

2.5 The different written sections should preferably be no more than 10 lines each. They should use bold lettering 10 – 15 mm high so be easily readable from a distance of 2 m. Use of capital letters only is discouraged. The flow pattern should be indicated clearly by arrows or numbers.

2.6 Each figure, photograph or table should have a clear caption and be at least 200 mm by 280 mm. Avoid overloading figures and tables with information and use colour to make them clearer.

2.7 Authors must set up their own posters at the start of the congress and remove them at the end of congress. Poster authors must attach to the board a plastic sleeve containing A4-size handouts of their poster. If they cannot be present at the congress they must designate someone to act on their behalf.

2.8 The programme may include a time slot for a poster presentation session (space permitting). Authors may be required to do a short (5 minute) presentation that describes what is contained in the poster.

2.9 Commercial promotion is not permitted (separate exhibition space can be purchased for this).

94th SASTA CONGRESS

GUIDELINES FOR PRACTICAL SUCCESS STORIES (AGRICULTURE SESSIONS ONLY)

Practical success stories are intended for non-scientific work or experiences. Authors are encouraged to share examples of ideas/innovations that have resulted in positive, practical outcomes in the workplace.

No formal manuscript submission is required. A short description of the success story is required to indicate intent to submit. Thereafter, a more detailed summary of approximately 250 words is required for inclusion in the Congress Abstract booklet. A picture may be included if appropriate.

Practical success story summaries will not be peer reviewed but will be edited for stylistic purposes.

94th SASTA CONGRESS

GUIDELINES FOR COMMERCIAL PAPERS

Commercial papers are intended for non-scientific work or experiences and may include product or company information.

No formal manuscript submission is required. A short description/abstract of the paper's content is required to indicate intent to submit. Thereafter, a more detailed summary of approximately 250 words is required for inclusion in the Congress Abstract booklet. A picture may be included if appropriate.

Commercial paper summaries will not be peer reviewed but will be edited for stylistic purposes.

Appendix: SASTA Abbreviations and Acronyms

SI Units

SASTA uses the SI metric system of units.

SI base units and derived units

A	ampere(s)
°C	degree(s) Celsius
bar	bar(s)
cd	candela
cd/m^2	candela per square metre
cm	centimetre(s)
d	day
deg	degree(s)
dia	diameter
F	farad
g	gram(s)
h	hour(s)
ha	hectare(s)
Hz	hertz
J	joule(s)
J/m^2	joules per square metre
K	Kelvin
kg	kilogram(s)
kg/cm^2	kilogram force per square centimetre
kg/m^3	kilogram per cubic metre
kgf	kilogram force
kJ	kilojoule(s)
km	kilometre(s)
km/h	kilometres per hour
kN	kilonewton
kPa	kilopascal(s)
kV	kilovolt(s)
kVA	Kilovoltamps
kW	Kilowatt(s)
kWh	kilowatt hour(s)
l	litre(s) (10^{-3} m^3)
lm	Lumen(s)
lx	lux
m	metre(s)
m/s	metres per second
m/s^2	metres per second squared
m^2	square metre(s)
m^2/s	metre squared per second
m^3	cubic metre(s)
mg	milligram(s)
MHz	megahertz
min	minute(s)
ml	millilitre(s)
mm	millimetre(s)
mm^2	square millimetre(s)
mol	mole(s)
mPa	millipascal(s)
MPa	megapascal(s)
N	Newton(s)
Nm	Newton metre(s)
Pa	pascal(s)
Pa.s	pascal second(s)

ppm	parts per million
r/s	radians per second
rpm	revolutions per minute
s	Second(s)
S	Siemen(s)
t	tonne(s)
V	Volt(s)
VA	volt ampere(s)
W	Watt(s)
Ω	Ohm(s)

SI Prefixes

Factor		Name	Symbol
10^{24}		yotta	Z
10^{21}		zetta	Y
10^{18}		exa	E
10^{15}		peta	P
10^{12}		tera	T
10^{9}		giga	G
10^{6}		mega	M
10^{3}		kilo	k
10^{2}		hecto	H
10		deca	da
1			
10^{-1}		deci	d
10^{-2}		centi	c
10^{-3}		milli	m
10^{-6}		micro	µ
10^{-9}		nano	n
10^{-12}		pico	p
10^{-15}		femto	f
10^{-18}		atto	a
10^{-21}		zepto	z
10^{-24}		vocto	y

Use abbreviations only where digits are used:

10 tc/ha/month BUT …the tonnes cane per hectare per month increased.

Other commonly used abbreviations

These should be written out in full with the abbreviation in brackets the first time it is used in the text. Thereafter the abbreviation may be used.

suc	sucrose
erc	estimated recoverable crystal
ers	estimated recoverable sucrose
tc	tonnes cane
ts	tonnes sucrose
ters	tonnes estimated recoverable sucrose
ann	annum
mth	month
avg	average
RV%	recoverable value

Latin abbreviations

Common Latin abbreviations are:

et al.	*et alia*	and others
e.g.	*exempli gratia*	for example

etc.	*etcetera*	and so forth
i.e.	*id est*	that is
viz	*videlicet*	namely
c or c	*circa*	about, around

Figure abbreviations

For figure abbreviations, leave a space between the figure and the abbreviation.

23 ha 56 t 120 km/h 12 g

When using percentages, the degree sign and the 'more than' or 'less than' signs, do not leave a space:

1% 10% 10.5% 20°C <30 >50

Figure numbers

Figure 1, Table 1 and Experiment 1 are always written out in full and capitalised, both in text and legend. However, stage 1 and treatment 1 should be in lower case unless at the beginning of a sentence.

Numbers

Within text, numbers from one to nine are written out in full; 10 and above are shown as figures. However, figures are always used for addresses and when quoting amounts of money.

> After 23 months of drought the demand for baled cane tops increased, and an additional two balers were obtained from 9 West Street at a cost of R30 500* each.

*__Note__ the space between hundreds and thousands.

When comparing amounts, numbers should be used:

Yields from fields 8, 13 and 27 were 12, 9 and 11 tc/ha, respectively.

Scientific Names

The complete scientific name must be cited for every organism at the first mention. The generic name should be abbreviated to the initial thereafter, except where intervening references to other genera with the same initial could cause confusion. If vernacular names are employed, they must be accompanied by the correct scientific name on first use.

Nomenclature

Commonly used nomenclature is listed below:

Word or phrase	Symbol or abbreviation
Absolute	(a)
Alternating current	AC
Biochemical Oxygen Demand	BOD
Chemical Oxygen Demand	COD
Degrees brix	°Brix
Direct current	DC
Electromotive force	EMF
Forced draft	FD
Gauge	(g)
Gross calorific value	GCV
High pressure	HP
High strength friction grip	HSFG
High voltage	HV
Hydrometer	HYD
Induced draft	ID
Internal diameter	ID
International Sugar Scale	°ISS

Low pressure	LP
Maximum	Max
Maximum continuous rating	MCR
Minimum	Min
Nephelometric Turbidity Unit	NTU
Net calorific value	NCV
Net positive suction head	NPSH
Non-destructive test	NDT
Number	No.
Outer diameter	OD
pH	pH
Phase	Ph
Power factor	PF or pf
Root mean square	rms
Specific gravity	SG
Squirrel cage rotor	SCR
Totally enclosed fan cooled	TEFC

Measurement

Percent by mass	% (m/m)
Percent by volume	% (v/v)
Percent	%

Materials

Carbon dioxide	CO_2
Carbon steel	CS
Cast iron	CI
Chromium	CR
Compressed asbestos fibre	CAF
High density polyethylene	HDPE
Polypropylene	PP
Polytetrafluoroethylene	PTFE
Polyvinyl chloride	PVC
Stainless steel	SS
Sulphur dioxide	SO_2

Pipework and valves

Non Rising Stem	NRS
National pipe threads	NPT
Union bonnet (for valves)	UB
Water, oil or gas	WOG

Common Spellings

Broadleaf	NOT	broad leaf or broad-leaf
cane field	NOT	canefield
cane grower	NOT	canegrower
cane knife	NOT	caneknife
the class A pan	NOT	the Class A pan
cut-off road	NOT	cutoff BUT the road was cut off
databank	NOT	data bank or data-bank
database	NOT	data base or data-base
diagram	NOT	diagramme BUT diagrammatic
fertiliser	NOT	fertilizer
filtercake	NOT	filter cake, filter-cake
Gingindlovu	NOT	Gingindhlovu
guidelines	NOT	guide lines or guide-lines
gulley	NOT	gully
hand weeded	NOT	hand-weeded or handweeded
hillside	NOT	hill-side

infield	NOT	in-field
inrow	NOT	in-row
interrow	NOT	inter-row
in between	NOT	inbetween
long term	NOT	long-term or longterm
low-lying	NOT	low lying
man-days	NOT	mandays or man days
man-hours	NOT	manhours or man hours
mechanise	NOT	mechanize
millroom	NOT	mill-room
millyard	NOT	mill-yard
off-crop	NOT	offcrop
off-load	NOT	offload
plough-out	NOT	ploughout
pre-filtration	NOT	prefiltration
pre-treatment	NOT	pretreatment
pre-emergence	NOT	pre emergence
rainfed	NOT	rain-fed, dryland or rain grown
replant	NOT	re-plant
run-off (water)	NOT	runnoff BUT to run off (copies)
seedbed	NOT	seed bed or seed-bed
seedcane	NOT	seed cane or seed-cane
seed tray	NOT	seedtray or seed-tray
short term	NOT	short-term
stream bank	NOT	stream-bank or streambank
sugarcane	NOT	sugar cane or sugar-cane
sub-sample	NOT	subsample
subsoil	NOT	sub-soil
subsurface	NOT	sub-surface
to date	NOT	to-date or todate
top-dress	NOT	topdress
topsoil	NOT	top-soil
twofold	NOT	two-fold
Umfolozi	NOT	Umfolosi
water course	NOT	watercourse or water-course
waterlog	NOT	water-log
water table	NOT	watertable
waterway	NOT	water-way
weedkiller	NOT	weed-killer or weed killer
world-wide	NOT	worldwide or world wide
a build-up of	BUT	to build up
carry-over cane	BUT	to carry over
dryland crop	BUT	the crop was planted in dry land
field layout	BUT	lay out a field
follow-up treatments	BUT	to follow up on or with
work programme	BUT	computer program
spillover (terrace)	BUT	to spill over
stand-over (cane)	BUT	to stand over
index (list)	AND	indexes (plural)
index (ratios)	AND	indices (plural)

Acronyms

All initial letters denoting names of firms, organisations and countries are in capitals and without full stops.

SASA SASRI CCWR SMRI SA UK USA

If mentioned only once within a document, the name should be written out in full. If a name is to be used more than once, it should be written out in full at first mention, with the capitalised initials in brackets immediately following the name. Thereafter the firm or organisation should be referred to by initials only, as below:

The Bureau of Sugar Experiment Stations (BSES) has screened a large number of samples. Greencane harvesting has led to co-ordinated projects involving the BSES and the Commonwealth Scientific Industrial Research Organisation.

Common Acronyms

ACIAR	Australian Centre for International Agricultural Research
ACRU	Agricultural Catchments Research Unit (model)
AFLP	amplified fragment length polymorphism
ALASA	Agricultural Laboratory Association of Southern Africa
ANN	artificial neural network
ANOVA	analysis of variance
ANSI B31.3	American National Standards Institute
APSRU	(Australian) Agricultural Production Systems Research Unit
ARC	Agricultural Research Council
ASAR	adjusted sodium adsorption ratio
ASI	aluminium saturation index
ASTM	American Society of Testing Materials
AT	Agricultural Technician (DoA)
AWS	automatic weather station
BCEA	Basic Conditions of Employment Act
BHR	boiling house recovery
BHTCD	burn-harvest to crush delay
BIG	biomass integrated gasification
BIG/CC	biomass integrated gasification/combined cycle
BIG/GT	biomass integrated gasification/gas turbine
BPNN	back-propagational neural network (a class of ANN)
BS	British Standard
BSA	bulk segregant analysis
BS CP	British Standard Code of Practice
BS EN	British Standard Euro Norm
BSES	Bureau of Sugar Experiment Stations (Australia)
CARA	Conservation of Agricultural Resources Act
CCS	commercial cane sugar (Australia)
CCWR	Computer Centre for Water Research
CDA	controlled droplet application
CRB	corrected reduced boiling house recovery
CRC-SSP	Co-operative Research Centre for Sustainable Sugar Production (Aust)
CRE	corrected reduced extraction
CSIR	Council for Scientific & Industrial Research
CSIRO	Commonwealth Scientific & Industrial Research Organisation
CTS	Cane Testing Service
CWU	crop water use (modelling)
DAC	direct analysis of cane
DDT	dichlorodiphenyltrichloroethane
DGD	degree of genetic determination (plant breeding)
DIN	Deutsche Industrial Normen
DM	dry matter
DNA	deoxyribonucleic acid
DRD	daily rateable delivery
DSP	Decision Support Program
DSSAT	Decision Support System for Agrotechnology Transfer
DST	Department of Science and Technology
dti	Department of Trade and Industry
DWAF	Department of Water Affairs & Forestry
EAI	exchangeable aluminium index

EB-EIA	evaporative binding-enzyme immunoassay
EC	electrical conductivity
EDTA	ethylene diamine tetra-acetic acid
EEC	effective electrical conductivity
EIA	environment impact assessment
EiT	Engineer-in-Training
ELISA	enzyme-linked immunosorbent assay (pathology)
EMP	environment management plan/programme
EMS	environment management system
ENSO	El Nino southern oscillation (weather)
ERC	estimated recoverable crystal / Extension & Research Committee
ERS	estimated recoverable sucrose
ESG	Extension Support Group
EST	expressed sequence tag
ET / Et	evapotranspiration
EU	European Union
FAS	Fertiliser Advisory Service / Foreign Agricultural Service (US DoA)
FAWU	Food and Allied Workers Union
FC	field capacity (modelling)
FFPE	falling film plate evaporator
GC	gas chromatograph
GC-MS	gas chromatograph with mass spectrometry detector
GDP	gross domestic product
GEAR	Growth, Employment and Redistribution (govt strategy)
GPS	global positioning system
GUI	graphic user interface (used with GIS)
HAZOPS	hazard and operability study
HTC	heat transfer coefficient
HTM	high test molasses
HWT	hot water treatment
ICASA	International Consortium for Agricultural Systems Applications
ICFR	Institute for Commercial Forestry Research
ICUMSA	International Commission for Uniform Methods of Sugar Analysis
IFDC	International Fertilizer Development Center
IEM	Integrated Environmental Management
IFM	immunofluorescence microscopy
IPB	Institute of Plant Biotechnology (Stellenbosch University)
ISBUC	International Biomass Utilisation Consortium
ISCW	Institute for Soil, Climate & Water
ISO	International Organisation for Standardisation
ISSCT	International Society of Sugar Cane Technologists
IT	Internet Technology
ITC	Industrial Training Centre
IWUE	irrigation water use efficiency
JIS	Japanese Industrial Standards
KDI	potassium desorption index
KZNDA	KwaZulu-Natal Department of Agriculture
LAA	Local Area Agreement
LAI	leaf area index
LCD	liquid crystal display
LED	light emitting diode
LGC	Local Grower Council
LIMS	Laboratory Information Management System
LOMS	length of milling season
LPD&VCC	Local Pest, Disease & Variety Control Committee
LSD	least significant difference
LTA	lost time % available
MARS	Monitoring Agriculture with Remote Sensing
MCC	Mill Cane Committee
MERC	modified estimated recoverable crystal

MGB	Mill Group Board
MJ	mixed juice
NBCGA	Noodsberg Cane Growers' Association
NIRS	near infra-red spectroscopy
NGO	Non-Government Organisation
NOSA	National Occupation & Safety Regulations Act
NRF	National Research Foundation
ODE	ordinary differential equation
OHSA	Occupational Health & Safety Act
OR	overall recovery
OSCA	Owen Sithole College of Agriculture
OTE	overall time efficiency
PAETA	Primary Agriculture Education & Training Authority
PAWC	plant available water capacity
PCM	phase contrast microscopy
PCR	polymerase chain reaction
PET	potential evapotranspiration (modelling)
PPRI	Plant Protection Research Institute
QDPI	Queensland Department of Primary Industries
RD&EC	Research, Development and Extension Committee
RDP	Reconstruction & Development Programme
RFLP	restricted fragment length polymorphism
RNA	ribonucleic acid
RSD	ratoon stunting disease
RSSC	Royal Swazi Sugar Corporation
RT-PCR	reverse transcription-polymerase chain reaction
RV	Recoverable Value
SAAB	SA Association of Botanists
SABS	South African Bureau of Standards
SACGA	SA Cane Growers' Association
SADC	Southern Africa Development Community
SAGS	SA Genetics Society
SAII	SA Irrigation Institute
SANAS	South African National Accreditation System
SAR	sodium adsorption ratio
SASA	South African Sugar Association
SASCP	SA Society of Crop Production
SASMA	South African Sugar Millers' Association NPC
SASRI	South African Sugarcane Research Institute
SAST	SA Sugar Terminals
SAWSS	SA Weed Science Society
SCA	sensitive coastal areas
SCMV	sugarcane mosaic virus
SE	standard error
SED	standard error of differences
SEM	scanning electron microscopy
SGDT	Small Grower Development Trust
SGB	Standards Generating Body
SITFE	Sugar Industry Trust Fund for Education
SMRI	Sugar Milling Research Institute NPC
SOM	soil organic matter
SRDC	Sugar Research & Development Corporation
SSA	Swaziland Sugar Association
SRI	Sugar Research Institute
TEM	transmission electron microscopy
TIA	Technology Innovation Agency
TPD	target purity difference
UPE	user pays entity
UPOV	International Union for Protection of New Varieties of Plants
USLE	universal soil loss equation

VHP	very high pol (of raw sugar)
VR	value recovery
WfW	Working for Water
XRD	x-ray diffraction
XRE	crystal recovery efficiency
XRF	x-ray fluorescence
YLS	yellow leaf syndrome
ZSAES	Zimbabwe Sugar Association Experiment Station