



COMBINED CONGRESS

Annual congress of
SSSSA, SASHS & SASCP

WHAT IS THE NEW NORMAL
FOR AGRICULTURE
TO ENSURE SUSTAINABLE
LIVELIHOOD IN AFRICA?

WAT IS DIE NUWE NORMAAL OM
VOLHOUBARE LEWENSONDERHOUD
IN AFRIKA TE VERSEKER?

Aanlyn kongres / Online congress

17-23 January 2022

Viewing of the abstracts and posters

25-27 January 2022

Combined Congress

<https://combinedcongress.org.za/>



COMBINED CONGRESS 2022

INTRODUCTION

The Combined Congress of the Crop, Soil, Horticultural and Weed Science Societies of South Africa will be held online from **25-27 January 2022**. The theme of congress is: What is the new normal for agriculture to ensure sustainable livelihood in Africa?

The congress provides opportunities for interaction between various agricultural role players who will present their latest scientific findings, and deliberate issues pertaining to soil and the production of food and industrial crops in South and Southern Africa. Not only does this event broaden the knowledge base of all concerned, but also enhances the synergies between the different institutions and business sectors.

DETAILS ABOUT CONFERENCE

During the morning sessions there will be a live talk by an invited speaker, followed by live discussion sessions on presentations and posters during the day arranged in specific sub-topics. During these sessions speakers will be required to answer questions from participants. All presentations and posters will be available for viewing during the week of **17-23 January 2022**.

REGISTRATION

Please register on our website: <https://combinedcongress.org.za/>

You will first have to register on the Combined Congress website before you can register for the Combined Congress itself. Members of societies can log in with their society credentials.

TICKETS AND BOOKINGS

www.quicket.co.za/events/142896-combined-congress-2022-annual-congress-of-ssssa-sashs-sascp#/

If you have any enquiries about tickets, payments or need an invoice, please e-mail contact Clint Ockhuis from Landbouweekblad (Media24) (our event partner).
E-mail - Clint.Ockhuis@media24.com

ENQUIRIES

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POSTERS			SASHS ORAL PRESENTATIONS						
SASHS poster session	Session 1		Session 2		Session 3		Session 4		
	Biotechnology, Breeding, Propagation, Nutrition, Water Mangement & Crop Protection		Indigenous, Medicinal Plants; New & Alternative Crops		Production & Cultivation Practices		Physiology & Post-Harvest Biology		
Number	Number	Title	Number	Title	Number	Title	Number	Title	
H33	H1	EVALUATION OF DNA MOLECULAR MARKERS FOR FINGERPRINTING SELECTED LITCHI CULTIVARS - Hajari, Nonyane, Cronje	H7	PROTEOMICS ANALYSIS OF HONEYBUSH (CYCLOPIA SUBTERNATA) LEAVES IN RESPONSE TO DROUGHT STRESS - Mabizela, Mathabe, Slabbert, Van der Rijst, Bester	H12	EFFECT OF HARVESTING TIME ON YIELD AND QUALITY OF ROSEMARY, ROSE GERANIUM AND THYME ESSENTIAL OILS - Du Preez, De Jager	H26	DOES ELEVATED CO2 AFFECT THE BIOCHEMICAL QUALITY AND NUTRITIONAL PARAMETERS OF SWEETCORN (ZEA MAYS L. VAR. SACCHARATA) - Bertling, Dlulisa	
H34	H2	SWEET BASIL RESPONSE TO VARYING NUTRIENT SOLUTION CONCENTRATIONS AND WATER FLOW RATES IN A GRAVEL FILM RECIRCULATING HYDROPONIC SYSTEM - Moremi, Steyn, Ibraimo	H8	TO PROTECTED ENVIRONMENT OR NOT: REVEALING CONVINCING EVIDENCE OF UV-INDUCED GEOMETRICAL ISOMERIZATION OF CINNAMIC ACID CONTAINING MOLECULES IN BUSH TEA (ATHRIXIA PHYLLICOIDES DC.) USING UHPLC-QTOF-MS - Ramphinwa, Madala, Mudau, Mchau	H13	THE EFFECT OF VARYING LIGHT INTENSITY ON MORPHOLOGICAL AND QUALITY PARAMETERS OF SWEET PEPPERS - Dlamini, Bertling	H27	EXOGENOUS ETHEPHON APPLICATION AFFECTS GENE EXPRESSION OF ETHYLENE-, DORMANCY- AND FLOWERING-RELATED GENES AND ALTERS TREE PHENOLOGY AND PHYSIOLOGY IN LITCHI, CV. "MAURITIUS" - Cronje, Hajari, Ratlapane, Hoffman, Jonker	
H35	H3	EFFECT OF NITROGEN FERTILIZER SOURCE ON GROWTH, YIELD, QUALITY, AGRONOMIC PERFORMANCE, AND NITROGEN USE EFFICIENCY OF SHORT-DAY ONION IN RESPONSE TO THE COMBINED APPLICATION OF DIFFERENT NITROGEN FERTILIZERS - Simelane, Soundy, Maboko	H9	ESTABLISHMENT OF HONEYBUSH CUTTINGS AND SEEDLINGS IN THE FIELD AND THE EFFECT OF BIOSTIMULANTS ON REDUCING ABIOTIC STRESS WHEN TRANSPLANTING ROOTED CUTTINGS - Karsen, Hoffman, Lötze, Valentine	H14	EARLY ASSESSMENT OF COMPATIBILITY IN SELECTED LITCHI SCION-ROOTSTOCK COMBINATIONS - Hannweg, Maphanga, Shezi, Penter, Hajari	H28	THE IMPACT OF ELEVATED CO2 ON GROWTH, DEVELOPMENT, AND REPRODUCTION ON SWEETCORN (ZEA MAYS L. VAR. SACCHARATA) - Dlulisa, Bertling, Cluclow	
H36	H4	RECOVERY RESPONSE OF SIMULATED HAIL-DAMAGED ROSE GERANIUM (PELARGONIUM GRAVEOLENS L'Hér "Bourbon") TO DIFFERENT MIXTURES OF AGRICULTURAL PLANT GROWTH REGULATORS - Khetsha, Sedibe, Pretorius, Van Der Watt	H10	THE EFFECT OF PRUNING AND HARVESTING ON VEGETATIVE GROWTH AND FLOWERING OF LEUCOSIDEA SERICEA - Mabusela, Matsiliza-Mlathi, Kleynhans, Araya	H15	THE EFFECT OF PROHEXADIONE-CALCIUM APPLICATION ON SHOOT REGROWTH, CROP LOAD AND FRUIT YIELD ALTERNATION IN FUJI APPLE TREES - Horne, Kotze, Krige, Steyn, Theron, Siboza	H29	SELECTION OF STABLE AND HIGH-YIELDING DWARFING APPLE ROOTSTOCK GENOTYPES - Ngindi, Siboza, Theron, Steyn	
H37	H5	EFFICACY OF LACTIC ACID BACTERIA STRAINS ON ANTHRACNOSE DECAY AND FRUIT QUALITY OF AVOCADO (PERSEA AMERICANA) FRUIT (FUERTE) - Mpeluza, Sivakumar, Akinola	H11	EFFICIENCY OF RHIZOBIA STRAINS ON GROWTH, SELECTED MACRONUTRIENTS AND PROTEIN CONTENT OF CANCER BUSH (SUTHERLANDIA FRUTESCENS) - Masenya, Pofu, Mashela	H16	PHENOLOGY AND PRODUCTION OF HELICHRYSUM ODORATISSIMUM - Makena, Matsiliza-Mlathi, Kleynhans	H30	GENETIC DIVERSITY AND PHYLOGENETIC ANALYSIS OF RHIZOBIAL SYMBIONTS OF GROUNDNUT, JACK BEAN AND SOYBEAN SOURCED FROM DIFFERENT LOCATIONS IN ESWATINI - Ngwenya, Dakora, Mohammed	
H38	H6	GENETIC DIFFERENCES BETWEEN AVOCADO SUNBLITCH VIROID (ASBVD) VARIANTS DETECTED IN A CLONAL POPULATION OF YOUNG, SYMPTOMLESS "FUERTE" TREES - Zwane, Gubba, Jooste			H17	GROWTH, HERBAGE AND OIL YIELD OF SELECTED HIGH-VALUE ESSENTIAL OIL CROPS AS INFLUENCED BY VARIOUS AGRONOMIC FACTORS - Malaka, Araya, Soundy, Jansen van Rensburg, Du Plooy, Araya, Watkinson, Amoo	H31	CHITOSAN HYDROCHLORIDE COATINGS LOADED WITH FUNCTIONAL COMPOUNDS PROTECT AVOCADO FRUIT ("FUERTE") FROM ANTHRACNOSE AND ACTIVATE THEIR DEFENSE MECHANISMS - Osondu, Akinola, Shoko, Pillai, Sivakumar	
					H18	ROOFTOP RAINWATER HARVESTING FOR SUPPLEMENTAL IRRIGATION OF SWISS CHARD (BETA VULGARIS VAR. CICLA) CULTIVATED IN A BAG CULTURE SYSTEM - Maleka, Araya, Soundy	H32	FATTY ACID PROFILES IN SOUTH AFRICAN MACADAMIAS AND THEIR IMPACT ON QUALITY AND SHELF LIFE - Penter	
					H19	EFFECT OF PLANTING DENSITY ON GROWTH AND YIELD OF FIELD AND HYDROPONICALLY GROWN CHILI PEPPER (CAPSICUM FRUTESCENS L.) - Maphoto, Bertling, Maboko, Ibraimo			
					H20	ESTABLISHING PROPAGATION TECHNOLOGY FOR BUDDLEJA SALIGNA AND EUCLEA NATALENSIS - Maringa, Kleynhans, Prinsloo			
					H21	THE EFFECT OF TIMING OF APPLICATION AND DOSAGE OF CLOPROP ON FRUIT ENLARGEMENT AND CLOPROP RESIDUES IN QUEEN PINEAPPLE FRUIT AT HARVEST - Mbatha, Rabie			
					H22	MODELLING AND MAPPING FUTURE CLIMATIC CONDITIONS FOR POME AND STONE FRUIT PRODUCTION IN THE WESTERN CAPE OF SOUTH AFRICA - Midgley, Schulze, Davis			
					H23	THE EFFECT OF DIFFERENT PRE-TREATMENTS TO BREAK SEED DORMANCY OF HYPOXIS HEMEROCAL-LIDEA - Mtshweni, Kleynhans, Matsiliza-Mlathi			
					H24	EVALUATING THE EFFICACY OF MORINGA OLEIFERA LEAF EXTRACTS PREPARED USING DIFFERENT SOLVENTS ON GROWTH, YIELD AND QUALITY OF TOMATOES AND PEPPERS - Ngcobo, Bertling			
					H25	THE CONTROL OF NATURAL FLOWERING IN QUEEN PINEAPPLE WITH TREATMENT COMBINATIONS OF AVIGLYCINE, CLOPROP, RHAMNOLIPIDS AND FERTILISERS DURING WINTER MONTHS IN SOUTH AFRICA - Rabie, Mbatha			



POSTERS			SSSSA ORAL PRESENTATIONS				
SSSSA poster session			Session 1	Session 2		Session 3	
			Soil Classification & Mapping	Soil Biology & Fertility		Soil Physics & Technology	
Number		Number	Title	Number	Title	Number	Title
S22	EVALUATING THE RELIABILITY OF WISE AND AFSIS SOIL PARAMETERS FOR CROP AND HYDROLOGICAL MODELLING IN SOUTH AFRICA - Thomson, Van der Laan	S1	REFINING DIGITAL SOIL MAPPING PROTOCOLS TO IMPROVE SOIL ECOTOPE MAPPING IN THE KWAZULU-NATAL BIORESOURCE CLASSIFICATION SYSTEM - Atkinson, De Clercq, Rozanov	S8	CARBON LOSSES AND GAINS IN AGRICULTURAL SOILS: A BASELINE STUDY OF THE MICROBIAL COMMUNITY OF TWO SOILS UNDER TWO CULTIVATION PRACTICES - Kidson, Rama, Adeleke, Paterson, Roopnarain	S17	SOIL HEALTH AND CROP DIVERSIFICATION IN SUB-SAHARAN AFRICA: COMBINING EXPERT KNOWLEDGE WITH INTEGRATED MODELLING FOR BUILDING RESILIENT FOOD SYSTEMS - Eze, Zimba, Dougill, Challinor, Pope, Clark, Coskeran, Mashingaidze, Macdiarmid, Fitton, Smith, King, Chapman, Mwamakamba, Kepinski, Jennings, Vetter, Tim Benton, Madzivhandila
S23	SOIL ENZYME ACTIVITIES AND SOIL ALTERATION INDEX RESPONSE TO BIOSTIMULANT APPLICATION IN A TABLE GRAPE VINEYARD - Mahlare, Meyer, Mfeka, Van Huyssteen, Rhode	S2	INVESTIGATION INTO THE ACCURACY OF SELECTED SOIL PROPERTIES FOR DIFFERENT GLOBAL AND REGIONAL SOIL MAPS RELEVANT TO SOUTHERN AFRICA - Bodenstein, Clarke, Watson, Miller, Van der Westhuizen, Rosanov	S9	MINE REHABILITATION ASSESSMENT USING AN ENZYME-BASED SOIL ALTERATION INDEX - Meyer, Rhode, Van Huyssteen	S18	EFFECT OF SOIL FORMS ON SOIL WATER AND DRYLAND COTTON PRODUCTION - Gagiano, Van Zijl, Dreyer, Daniell
S24	SOIL ENZYME ACTIVITIES AND SOIL ALTERATION INDEX RESPONSE TO BIOSTIMULANT APPLICATION IN A WINE GRAPE VINEYARD - Mahlare, Meyer, Mfeka, Van Huyssteen, Rhode	S3	IS SOIL A DRIVING FACTOR OF BUSH ENCROACHMENT IN THE NORTH WEST PROVINCE? - Cloete	S10	FIRE AND HERBIVORE GRAZING ALTERS SOIL CARBON AND NUTRIENTS IN A SAVANNA GRASSLAND - Ramabopa, Dlamini, Archibald	S19	MID-INFRARED SPECTROSCOPY CALIBRATION MODELS FOR SOIL PROPERTY PREDICTION WITHIN THE WESTERN HIGHVELD - Kock, Van Zijl, Ramphisa
S25	AN ENZYME-BASED SOIL ALTERATION INDEX (AI3) FOR MINE REHABILITATION ASSESSMENT - Meyer, Van Huyssteen, Rhode	S4	DIGITAL SOIL MAPPING OF THE JUKSKEI RIVER CATCHMENT USING A MACHINE LEARNING APPROACH - Coetzee, Van Zijl	S11	SOIL ORGANIC CARBON AND MICROBIAL ACTIVITY IN HUMIC SOILS UNDER GREEN CANE RELATIVE TO PRE-HARVEST BURNING - Mkhonza, Muchaonyerwa	S20	CHARACTERIZATION OF PINWOOD BIOCHAR AND ITS POTENTIAL USE IN REDUCTION OF HEAVY METAL CONTAMINATES MIGRATION - Mamera, Van Tol, Aghoghovwia
S26	BIOREMEDIATION OF HEAVY METALS IN AGRICULTURAL SOILS IRRIGATED WITH TREATED WASTEWATER - Phadu, Kgopa	S5	ASSESSING SOIL SURFACE SALT ACCUMULATION (SOIL SALINITY) USING MULTISPECTRAL IMAGES IN SYFERKUIL FARM - Mamorobela	S12	THE RESPONSE OF SOIL PHYSICOCHEMICAL PROPERTIES TO RAINFED AND IRRIGATED MAIZE/LEGUME INTERCROPPING SYSTEMS - Nong, Pholoshlo, Ogola	S21	BUILDING CLIMATE-SMART, NUTRITION-SECURE PATHWAYS IN AFRICA USING IFEED - AN INTEGRATED FUTURE ESTIMATOR FOR EMISSIONS AND DIETS FRAMEWORK - Vetter, Challinor, Pope, Clark, Coskeran, Mashingaidze, Macdiarmid, Fitton, Smith, King, Chapman, Mwamakamba, Jennings, Walker, Benton, Madzivhandila
S27	EFFECTS OF PHYTOREMEDIATION ON SELECTED CHEMICAL PROPERTIES OF SOILS IRRIGATED WITH TREATED WASTEWATER - Malatji, Kgopa, Bopape-Mabapa	S6	THE DEVELOPMENT OF THE NWU SOIL DATABASE AS A PRECURSOR FOR A NATIONAL SOIL DATABASE - Sehlapelo, Ramphisa, Van Zijl	S13	CROPPING SEQUENCES INFLUENCE ON LABILE CARBON AND PHOSPHORUS FRACTIONS IN A CONSERVATION AGRICULTURE SYSTEM - Sosibo, Muchaonyerwa, Dube, Tsilo		
S28	PLANT WATER-USE EFFICIENCY AND SYMBIOTIC N NUTRITION OF 15 SOYBEAN (GLYCINE MAX) GENOTYPES GROWN IN THE UPPER WEST REGION OF GHANA, USING 13C AND 15N NATURAL ABUNDANCE TECHNIQUE - Mnguni, Mohammad, Mahama, Abdulai, Dakora	S7	SOIL MAPPING FOR HYDROPEDOLOGICAL ASSESSMENTS - Van Zijl	S14	PRELIMINARY FINDINGS OF A QUANTITATIVE REVIEW OF SUGARCANE RESPONSES TO SILICON-RICH AMENDMENTS UNDER FIELD CONDITIONS - Titshall		
S29	PRELIMINARY RESULTS ON THE EFFICACY OF POLYACRYLAMIDE (PAM) TO ALLEVIATE SOIL CRUSTING FOR RECLAMATION OF DEGRADED LAND IN DINOKENG GAME RESERVE - Human, Nortjè, Laker			S15	SOIL ORGANIC CARBON STRATIFICATION UNDER CONSERVATION AGRICULTURE IN THE WESTERN CAPE PROVINCE - Van der Merwe, Labuschagne, Hardie-Pieters		
S30	THE VARIATION IN SOIL CARBON EMISSION RATES IN FIVE LAND USE SYSTEMS OF THE LETABA CATCHMENT, LIMPOPO PROVINCE, SOUTH AFRICA - Ntuli, Monjonji, Dlamini, Ayisi			S16	CONCENTRATIONS AND FRACTIONS OF ORGANIC CARBON AND PHOSPHORUS AS AFFECTED BY PIG SLURRY APPLICATION ON OXIDIC SOILS UNDER SUBHUMID CONDITIONS - Zwane, Muchaonyerwa		
S31	APPLICATION OF BIO-SLURRY TO IMPROVE MAIZE PRODUCTION IN RURAL COMMUNITIES - Anderson, Wessels, Koatla						
S32	USE OF DEMONSTRATION PLOTS AS AN EFFECTIVE TECHNOLOGY TRANSFER TOOL TO EMPOWER RURAL COMMUNITIES - Wessels						

Second Week of Combined Congress 2022

LIVE SESSIONS

	25 January 2022	26 January 2022	27 January 2022
09:00 - 10:15	SASHS - Keynote PROF WIEHANN STEYN - ACADEMIA AND INDUSTRY PARTNERING INTO THE FUTURE	SSSSA - Keynote PROF DONALD SPARKS - THE WATER, CLIMATE, SOIL AND FOOD NEXUS: GRAND CHALLENGES IN A CHANGING ENVIRONMENT	SASCP - Keynote DR CHLOE MACLAREN - T HE PAST, PRESENT AND FUTURE OF LONG-TERM AGRICULTURAL EXPERIMENTS
10:30 - 11:30	SASHS - Q&A Session 1 Biotechnology, Breeding, Propagation, Nutrition, Water Mangement & Crop Protection (and all posters)	SSSSA - Q&A Session 2 Soil Biology & Fertility (orals & posters)	SASCP - Q&A Session 3 Crop Physiology & Production
12:00 - 13:00	SSSSA - Q&A Session 1 Soil Classification & Mapping (orals & posters)	SASCP - Q&A Session 2 Conservation Agriculture, Crop Protection, Weeds & Herbicides	SASHS - Q&A Session 3 Indigenous, Medicinal Plants; New & Alternative Crops; Physiology & Post-Harvest Biology
13:30 - 14:30	SASCP - Q&A Session 1 Agrometeorology, Adaptation, Breeding & Crop Modelling	SASHS - Q&A Session 2 Production & Cultivation Practices	SSSSA - Q&A Session 3 Soil Physics & Technology (orals & posters)
15:00 - 16:30	AGM - SASHS	AGM - SSSSA	AGM - SASCP



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