

PROGRAMME

Monday 20 January 2020		
Time	Event	Venue
15:00 - 18:30	Registration	Centenary Complex (29°6'44.45"S; 26°11'13.39"E)
15:00 - 18:30	Posters	Economic and Management Science Building Foyer (29°6'31.97"S; 26°11'8.24"E)
19:00 - 20:30	Cocktail	Centenary Complex (29°6'44.45"S; 26°11'13.39"E)

Tuesday 21 January 2020		
Time	Event	Venue
07:00 – 08:30	Registration	Economic and Management Science Building Foyer
PLENARY SESSION – Room ALG2		
08:30 – 08:45	Welcome	Dr Cobus Botha
Keynote addresses		
8:45 – 9:15	Opening address	Prof Prakash Naidoo
9:15 – 9:45	SASHS	Prof Vaughan Hattingh Industry – University partnership opportunity road ahead for Horticultural research
9:45 – 10:15	SASCP	Mr. Matome Ramokgopa Innovative solutions for vegetable seed production for a growing population
10:15 – 10:40	MORNING TEA - Economic and Management Science Building Foyer	
10:45 – 11:15	SSSSA	Prof Klaus Kellner Scientifically sound policies and practices to ensure food security and sustainable agriculture
11:15 – 11:45	Poster Session 1	
11:45 – 12:50	LUNCH – CENTENARY COMPLEX	

FIRST CONCURRENT SESSION – Tuesday 21 January 2020

VENUE	ALG2	AG2	AG3
Subject	Hort Indigenous & Medicinal plants	Soil fertility	Crop nutrition & Water management
Chairperson	Louisa Blomerus	Gerhard Nortjé	Diana Marais
13:00 – 13:20	Impact of storage temperature and time on quality and phenolic compounds of Natal plum (<i>Carissa macrocarpa</i> L.) – Mphaphuli T	Accumulation and distribution of soil organic carbon in Oxisols, Tshivhase Estate, Limpopo Province – Ntsewa MR	Antidiabetic and nutritional activities of wild and cultivated Amaranthus spp. and isolated compounds – Nkbole N
13:20 – 13:40	Developing propagation technologies for indigenous plants used in the natural products industry – Kleynhans R	On-farm measurement of water and nutrient use efficiencies of potato-based rotation systems in North West Province – Mukiibi AM	An integrated approach to manage mycotoxin contamination in Southern African maize grain. - Janse van Rensburg B
13:40 – 14:00	Effect of harvesting intervals on plant growth and nutrient composition of <i>Moringa oleifera</i> seedlings – Mashamaite CV	Stabilization of soil organic carbon within silt+clay fraction in shrub- encroached rangeland shallow soil – Khumalo MN	Evaluation of kraal manure, inorganic fertilizer and lime on maize grain yields and selected soil chemical properties in acidic soils of Tsolo, Eastern Cape – Mbangcolo MM
14:00 – 14:20	Effect of growth conditions on phytochemicals in <i>Cleome gynandra</i> L. harvested at different growth stages – Masetla NL	Effect of zeolite as a soil amendment on the performance of cabbage (<i>Brassica oleracea</i> Var. capitata L) – Sindesi OA	Resource use efficiencies of potato production in the Sandveld region of the Western Cape – Steyn JM
14:20 – 14:40	Application of medicinal plant extracts against maize seeds Fusarium pathogens and their effects on seeds germination – Seepe HA	Soil spectral characteristics and their predictive value in relation to spatial and temporal variability in wheat yield and soil quality within a long-term field trial. – Ngejane N	Assessing the raid susceptibility of crops grown in the Eastern Okavango Panhandle between 2008 and 2018 – Matsika TA
14:40 – 15:00	Effects of synthetic amalgamated agricultural phytohormones on the changes in leaf trichome morphology and density, selected essential oil yield and quality parameters of simulated hail-damaged rose geranium (<i>Pelargonium graveolens</i> L'Her.). – Khetsha ZP	Infrequent tillage could be used to reduce nutrient stratification in conservation agriculture systems – Tshuma F	The influence of foliar and application rate of nitrogen fertiliser on seed- and oil yield of canola – Crous IR
15:00 - 15:25	AFTERNOON TEA - Economic and Management Science Building Foyer		

SECOND CONCURRENT SESSION – Tuesday 21 January 2020

VENUE	ALG2	AG2	AG3
Subject	Hort Biotechnology, Propagation and Post-harvest	Soil genesis, classification & mapping	Crop Physiology
Chairperson	Riana Kleynhans	Martiens du Plessis	Elmarie van der Watt
15:30 – 15:50	Towards the elucidation of compatible litchi scion:rootstock combinations – Hannweg K	A New South African Soil Classification: A Review of Selected Downstream Impacts – Barichiev KR	Genotypic variation in water use and water use efficiency among four Cassava landraces grown in the Northeastern part of South Africa. – Malele KP
15:50 – 16:10	Molecular characterisation of Macadamia using simple sequence repeat markers – Hajari E	Mapping soil factors influencing erosion using machine learning algorithms in the T35D-E Catchment in the Eastern Cape Province - du Plessis CJ	Can crop physiology knowledge enhance sugarcane breeding? – Singels A
16:10 – 16:30	Prediction of macadamia shelf life and optimisation thereof – Penter MG	Soil moisture monitoring using Citizen Observatory data – Kibirige DMK	Drought adaptation mechanisms utilized by <i>Moringa oleifera</i> tree grown under semi-arid condition of the Limpopo Province - Bopape-Mabapa MP
16:30 - 16:50	Sweet potato production in sacks: potential utilisation of limited space in rural, urban and peri-urban areas – Mudalahothe N	Development of a refined land capability evaluation data layer for South Africa – Collett A	Remote sensing of physiological traits with drones to assist sugarcane breeding: preliminary results – Hoffman N
16:50 – 17:10	The efficacy of postharvest wax application in the reduction of chilling injury incidence in lemon fruit (<i>Citrus limon</i> (L.) Osbeck) – North JJ	An introduction to peat in the South African Soil Classification – Grundling P	Floret survival, effect of soil fertility and sowing date on the contribution of main stem, tillers, kernel position to grain yield and protein content of wheat (<i>Triticum aestivum</i> L.) – Metho LA
17:10 – 17:30	The role of glucose to signal and regulate 'Hass' avocado fruit skin colour change during ripening – Mathaba N	Saving urban infrastructure from water damage: Digital soil mapping combines with hydrological modelling to determine remedial actions - van Zijl GM	Evaluation of agronomic and drought response traits of two soybean (<i>Glycine max</i>) cultivars for cultivation in the Transkei region of the Eastern Cape – Akanbi MO
19:00 - Late	Braai - Free State Botanical Garden (GPS coordinates 26°12'42.2"E; 29°03'10.6"S) / End of Rayton Rd continue on Bloemdal Rd off Dan Pienaar Drive.		

Wednesday 22 January 2020	
“SOIL FERTILITY AND CROP NUTRITION SYMPOSIUM: PRINCIPLES AND PRACTICES”	
Time	Event
07:30 – 08:00	Registration
08:00 – 08:10	Welcome and Opening - Dr Chris Schmidt – (Facilitator)
08:10 – 08:50	Soil Sampling for Soil Fertility Evaluation – Mr. Kobus van Zyl
08:50 – 09:30	Soil analyses – the certainty behind uncertainty – Mr. Vossie Wilsnach
09:30 – 10:00	Discussion
10:00 – 10:30	MORNING TEA - Economic and Management Science Building Foyer
10:30 – 11:15	Factors affecting liming principles and practices - Dr Pieter Haumann
11:15 – 12:00	Fertiliser Guidelines – Lab to Field - Dr Johan van Biljon
12:00 – 12:40	Discussion
12:40 – 12:50	Summary and Closure
13:00 – 13:50	LUNCH – CENTENARY COMPLEX

Wednesday 22 January 2020	
Excursion	
Time	Event
09:00 – 12:30	Excursion to Vergezocht Oil and iTau Milling
13:00 – 13:50	LUNCH – CENTENARY COMPLEX

THIRD CONCURRENT SESSION – Wednesday 22 January 2020			
VENUE	ALG2	AG2	AG3
Subject	Hort Production & Cultivation Practices	Crop Breeding, Quality, Physiology & Weeds	Soil Technology
Chairperson	Martha Phofu	Juan Vorster	Cobus Botha
14:00 – 14:20	Innovative sack production of <i>Beta vulgaris</i> in limited spaces: plant density effects – Mtsweni MD	Distribution of Russian wheat aphid biotypes in South Africa during 2018 and report of a new biotype in the Eastern Free State. – Jankielsohn A	Hydropedological response in a Savannah hillslope under different precipitation regimes - van Tol JJ
14:20 – 14:40	Physiological parameter and quality of baby spinach cultivars in Gauteng Province, South Africa – Masufi NM	Weed growth and crop yield responses to tillage and mulching under different crop rotation sequences in semi-arid conditions – Mashingaidze N	Identifying sources of suspended and deposited sediment at a sub-catchment level of the Caledon river basin – Taeni TT
14:40 – 15:00	Effect of plant growth substances on growth, yield and quality parameters of swiss chard (<i>Beta vulgaris</i> L.) – Masondo SN	Herbicide use within the commercial forestry sector in South Africa – Roberts JC	Can generalized erodibility models be applied for South African soils? - Abd Elbasit MAM
15:00 – 15:20	The effect of retain, swelpine and rhamnolipids on the inhibition of natural flowering in queen pineapple in South Africa – Mbatha BW	Oil content, oil and seed yield of sunflower as a function of hybrid and planting dates - Ma'ali S	
15:20 – 15:40	Effect of planting density on the growth and yield of chilli pepper (<i>Capsicum frutescens</i> L.) produced under field and closed hydroponics system – Maphoto ML	Germinability and growth of upland rice (<i>Oriza</i> spp.) cultivars as influenced by drought imposed at anthesis and storage temperature – Dada OA	
15:40 - 16:00	AFTERNOON TEA - Economic and Management Science Building Foyer		
ANNUAL GENERAL MEETING			
16:00 – 17:40	SASCP - ALG2	SSSSA - AG2	SASHS - AG3

THURSDAY 23 January 2020

FOURTH CONCURRENT SESSION – Thursday 23 January 2020

VENUE	ALG2	AG2	AG3
Subject	Hort Physiology & Indigenous plants	Soil Chemistry	Crop production & Modelling
Chairperson	Karin Hannweg	Andrei Rozanov	Michael van der Laan
8:30 – 8:50	Effect of biostimulants on germination of <i>Abelmoschus esculentus</i> genotypes – Makhaye G	Effects of land use change on soil organic carbon concentrations and quality in the semi-arid Central South Africa – Loke PF	Response of rainfed maize root morphology to plant population under no-tillage – Haarhoff SJ
8:50 – 09:10	Investigating the diversity of morphological and physiological traits of selected Swiss chard (<i>Beta vulgaris</i> L. subsp. <i>cicla</i>) cultivars – Mvukuzo X	Adsorption potential of arsenic and selenium in soil substrates: A laboratory and pedo-geochemical modelling study – Bouwer M	Does application time of glyphosate affect maize yield parameters? – Craven M
09:10 – 09:30	Underutilised traditional vegetables in South Africa: their importance and state of characterisation conservation and utilization – Mavengahama S	Wetland soil properties associated with the abundance of potential rift valley fever virus vectors in Central South Africa – Gqalaqha Z	The relationship between conservation tillage practices for potato production and nematode activity in the Sandveld region of South Africa - Van Zyl J
09:30 – 09:50	The effect of fruit load on various fruit quality parameters of 'Hass' avocado – Bertling I	Manganese (II) oxidising potential of selected soils under differing oxidation conditions: Implication for irrigation management of mine-impacted waters. – Heuer SN	Seed-drills and their influence on uniformity of crop emergence – Truter KJ
09:50 – 10:10	Influence of Foliar <i>Moringa Oleifera</i> Leaf Extract (MLE) Application on growth, fruit yield and nutritional quality of cherry tomato – Ngcobo BL	Susceptibility of urban soils from the Cape Town and Stellenbosch areas to degradation by laundry greywater – Madubela N	Management strategies to increase winter herbage production of the lucerne phase in long-rotation cropping systems - van der Westhuizen CG
10:10 – 10:30	Biomass production and chlorophyll content of three <i>Corchorus olitorius</i> cultivars in relation to planting date – Mothoa PE	Making fertilizer recommendation based on soil sorption capacity and soil P test efficiency: Comparison of Phosphate Buffering Capacity, single-point sorption test and incubation methods – White VG	Benefits of increased maize plant population and narrow rows under no-tillage is season-specific in semi-arid environments – Haarhoff SJ
10:30 - 10:55	MORNING TEA - Economic and Management Science Building Foyer		

FIFTH CONCURRENT SESION – Thursday 23 January 2020			
VENUE	ALG2	AG2	AG3
Subject	Crop Production, Water Management, Modelling & Agrometeorology	Hort/Crop Nutrition & Water management, Protection & New crops	Soil Biology, Chemistry, Fertility & Classification
Chairperson	John Annandale	Pippa Karsen	Kobus Anderson
11:00 – 11:20	Trends in reference Evapotranspiration for South Africa using Hargreaves and Samani method – Masithela TC	The effect of water stress at different phenological stages on growth, production and postharvest fruit quality of avocado (<i>Persea americana</i> Mill. Cv – Roets NJR	Disaggregation of Land Types map: Why bother and how much could, it cost. – Rozanov AB
11:20 – 11:40	Finetuning nitrogen fertiliser norms for wheat under conservation agriculture in the Western Cape – Labuschagne J	Water productivity of selected indigenous fruit tree crops in South Africa – Dzikiti S	Potential of conservation agriculture to sequester carbon in cultivated maize and wheat fields – Swanepoel CM
11:40 – 12:00	Evaluation of bio-slurry application rates and soil management options on soil moisture conservation and maize water productivity – Hadebe ST	Estimating crop factors of apple orchards with varying age groups using in-situ measurements and satellite data in the Western Cape Province, South Africa – Mobe NT	Whats new in the new classification system? - van Zijl G
12:00 – 12:20	Assessment of water risk for sustainable crop production – Grundling AT	Effect of planting date on leaf production, yield and yield components of five Amaranth species under different growing conditions – Makola TFM	Relating the South African soil classification system with the World Reference Base - van Huyssteen CW
12:20 – 12:40	Response of quality protein maize varieties to different soil amendments and population densities in tropical rainforest – Dada OA	Water relations of apple trees under different irrigation systems: A case study of drip vs micro irrigation systems in South Africa – Ntshidi Z	Vital Soils for Sustainable Intensification of Agriculture: A chronosequence approach to organic agricultural research - Mason-Jones K
12:40 – 13:00	Influence of planting techniques and maturity group on soya bean (<i>Glycine max</i>) yield in different agroecologies in the North Eastern Free State - van Zyl JP	Potential use of seeds with hypogeous germination as carriers of active ingredients from nematocidal phytonematicide – Mashela PW	Analysis of soil enzymes and microbial diversity for effective crop production under agroforestry environment in Limpopo and Mpumalanga Province – Makhwedzhana MM
13:00 – 13:50	LUNCH – CENTENARY COMPLEX		

SIXTH CONCURRENT SESION – Thursday 23 January 2020

VENUE	ALG2	AG2	AG3
Subject	Hort Production, Cultivation	Crop Nutrition & Protection	Hort Weed management & Protection
Chairperson	Mark Penter	Maryke Craven	Isa Bertling
14:00 – 14:20	The developmental growth and quality assessment of five selected cultivars of baby spinach grown in the north of Pretoria, Gauteng Province, South Africa – Masufi NM	Evaluation of trend of incursions of regulated pests and diseases of economic importance that are under official control in South Africa – Rambauli M	Weed management strategies for pumpkin – Manyoni NN
14:20 – 14:40	Effect of different growth media on growth, yield and quality of tomatoes grown using an open bag soilless system – Chiloane TS	Alleviation of residual herbicide phytotoxicity on dry beans using Brassinosteroids - Van der Watt E	Occurrence and diversity of nematodes around the rhizosphere of the kiwi trees in Limpopo province – Sekhukhune MK
14:40 – 15:00	Nutritional and phytochemical characterisation of sweet melon (<i>Cucumis melo</i> L.) cultivars grown in soilless culture – Pulela LB	Multiple resource limitation: Effect of nitrogen forms and phosphorus sources on potato grown in varying soil types – Kiongo SC	Host-status of 18 Fusarium-resistant sweet potato lines to Meloidogyne species in South Africa – Pofu KM
15:00 – 15:20	Performance and selection of soilless grown tomato cultivars for optimum yield and marketable quality – Araya NA	Should irrigation with mine-impacted water be considered part of the long-term strategy to manage acid mine drainage in the Witwatersrand Goldfields? – Annandale JG	Pelargonic acid as an alternative to paraquat for the preparation of fire-break tracer lines – Little KM
19:00 – Late	AWARD WINNING DINNER - CENTENARY COMPLEX		