

College of Agriculture and Environmental Sciences

Research Focus Areas: Department of Agriculture and Animal Health

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2026
CHAIR OF DEPARTMENT					
Agricultural Economics	Prof A Maiwashe-Tagwi tagwia@unisa.ac.za	Energy Economics & International trade	Prof A Maiwashe-Tagwi (PhD, M.Sc., B.Sc.) is an Associate Professor in the Department of Agriculture and Animal Health. She holds a PhD in Agricultural Economics from University of Venda. Her research interests are in energy economics studies in the agricultural sector with a focus on biomass, biogas and biofuel, machine learning and energy in agriculture, energy poverty, efficiency and Life cycle assessment (LCA) in agriculture.	1. Energy Economics 2. Just energy transition 3. Renewable energy and agri-food systems 4. Trade and energy 5. Carbon trade and farming 7. Machine learning and energy 6. Energy efficiency and profiling 7. Energy poverty 8. Agricultural waste markets 9. Agricultural green markets value chain. 10. Life cycle assessment (LCA) in agriculture.	MSc: 3 PhD: 5

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ANIMAL SCIENCE					
Monogastric nutrition	Prof CA Mbajorgu mbajica@unisa.ac.za	Improving productivity of indigenous and exotic chickens	Prof Mbajorgu is a full professor in the Department of Agriculture and Animal Health. He obtained his PhD at the University of Limpopo. His research focus is the use of non-conventional indigenous feed resources and Feed restriction methods including both quantitative and qualitative methods and 'skip a day feeding system' in chickens. To this end, the aim is to develop, test, apply and adapt optimization models for the estimation/prediction of nutrient requirements of indigenous chickens under commercial production system in addition to investigating their contributions to household income of rural dwellers.	1. Feed restriction methods 2. Optimization model 3. Non-conventional feed resources	MSc: 3 PhD: 2
Animal Nutrition and Production	Prof JW Ng'ambi ngambiw@unisa.ac.za	Nutrient optimization in poultry and small ruminant production.	Prof J W Ng'ambi: A Distinguished Professor in the Department of Agriculture and Animal Health, University of South Africa. He	1. Nutrient optimization in poultry and ruminant production. 2. Improving feed and water use efficiencies of ruminant animals.	PhD: 1 Postdocs: 2

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			obtained his PhD at the University of London in UK. His research focuses on optimising livestock productivity through better nutrition. Now he is focusing on mitigating the effects of climate change on livestock through better nutrition and management.	3. Reducing methane production and emission by ruminant animals through utilization of tanniniferous feeds.	
Poultry Production	Dr BL Mogoje mogojbl@unisa.ac.za	Poultry production	Dr Barileng Leonard Mogoje is a senior lecturer in the Department of Agriculture and Animal Health. He holds a PhD from University of South Africa. His research focus is on poultry covering production management, breeding, nutrition and poultry business.	1. Integrated poultry production management 2. Poultry breeding 3. Poultry nutrition	MSc: 2 PhD: 0
Animal Nutrition	Prof M Mabelebele mabelm@unisa.ac.za	Utilisation of novel ingredients as food and feed	Prof Monnye Mabelebele is a Professor in the Department of Agriculture and Animal Health. She obtained her PhD at the University of New England, Australia and a postdoc fellowship at Newcastle University, in UK. Her research focus is on probable use of alternative food sources and their impact in animal and human nutrition.	1. Metabolite profiles of possible feed and food ingredients for potential use in animal and human diets 2. Health benefits associated with medicinal plants in livestock 3. Reproductive and digestive physiology of farm animals 4. Meat and egg quality parameters	MSc: 2 PhD: 3

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				5. Cost–benefit analysis of utilising novel feed ingredients	
Animal Nutrition and reproductive physiology	Prof NA Sebola sebolan@unisa.ac.za	Animal Nutrition and reproductive physiology	Prof Amenda Sebola is an associate professor in the Department of Agriculture and Animal Health. She obtained her PhD at North-West University. Her research interest is on Animal nutrition and reproductive physiology: focusing on finding alternative feed resources and their efficiency on fertility of livestock especially ethnomedicinal plants. Methodology expertise: Quantitative and Qualitative studies	1. Animal Nutrition 2. Reproductive physiology 3. Ethnomedicinal plants 4. Food security	MSc: 1 PhD: 2
Animal Reproduction and physiology	Dr TR Netshirovha netshtr@unisa.ac.za	Antioxidants and reproduction biology	Dr Thivhilaheli Richard is a lecturer in the Department of Agriculture and Animal Health. He holds a PhD degree from University of KwaZulu Natal. His research focus is on assisted reproduction technologies such as, oestrous synchronisation, artificial insemination, in vitro embryo production and gametes cryopreservation in livestock to	1. Semen collection in bulls, bucks, boars, cocks and rams and evaluation by Computer Assisted Sperm Analyzer (CASA) system 2. Synchronization, artificial insemination and pregnancy diagnosis in cattle, goats, pigs, chickens, and sheep.	MSc: 2 PhD: 1

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			improve the genetic progress and conservation of valuable genetic material and understanding how specific antioxidants (as semen extender) and reproduction biology can improve livestock (cattle, goats, pigs, chicken and sheep) production following the use of assisted reproductive technologies.	Research on <i>in vivo</i> & <i>in vitro</i> embryo production and cryopreservation/freezing of gametes (semen and embryos). Animal feeds	
Dairy production	Dr PM Moshidi moshipm@unisa.ac.za	Optimizing dairy production	Dr PM Moshidi is a senior lecturer in the Department of Agriculture and Animal Health. She is holding PhD from University of Fort Hare. Her research focus is on modulating ruminal microbes, and their effects on fermentation and productivity in dairy cows.	Smallholder Livestock development: - Capacity development - Dairy infrastructure and business development - Dry-land and irrigation pasture establishment - Access to market - Dairy products - Replacement of antibiotics as feed additives in dairy production. - Modulating ruminal microbes, and their effects on	MSc: 6

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				fermentation and productivity in dairy cows.	
Animal Breeding and genetics	Dr DP Malatji malatdp@unisa.ac.za	Livestock genomics, molecular biology and parasitology	Dr Petunia Malatji is a Senior Lecturer in the Department of Agriculture and Animal Health. She obtained her PhD at the University of Pretoria. Her research focus is on genomics and molecular biology.	1. Animal-pathogen interaction 2. Genetic control in livestock 3. Molecular parasitology	MSc: 2 PhD: 3
Veterinary Parasitology	Prof N Nyangiwe nyangn@unisa.ac.za	Ticks and tick-borne diseases Veterinary Parasitology	Prof Nkululeko Nyangiwe is a Distinguished Professor in the Department of Agriculture and Animal Health. He is a registered Professional Natural Scientist under the South African Council for Natural Scientific Profession (SACNASP). He holds a PhD from the University of Stellenbosch. His research interests are mainly on veterinary parasitology, elucidating the acaricide resistance, climate change impact on Ixodid ticks	1.	

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			and is recently advancing in helminthology. His dream is to champion the epidemiology of ticks, tick-borne diseases and improve current control strategies.		
Ruminant nutrition, health and behaviour	Dr F Phiri phirif@unisa.ac.za	Ruminant foraging behaviour, growth performance and urinalysis. Blood and rumen microorganism profiling	Dr F. Phiri is a lecturer in the Department of Agriculture and Animal Health. He holds an MSc degree and a PhD in agriculture. His research mainly focuses on small and large ruminant nutrition and foraging behaviour. Methodology expertise: Quantitative & Qualitative studies	1. Plant secondary metabolites profiling. 2. Urine sediments and blood serum profiling. 3. Ruminant dietary development 4. Profiling of rumen microorganism composition.	MSc: 2 PhD: 1
Production Physiology	Dr E Janse van Rensburg dutoie@unisa.ac.za	Production physiology, specifically meat production for red meat.	Dr E Janse van Rensburg (PhD, M.Sc., B.Sc.) is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD in Agricultural Animal Science from University of Pretoria. Methodology expertise: Quantitative & Qualitative studies	1. Production physiology: meat science	MSc: 1 PhD: 1

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Animal Breeding and genetics	Ms R Gaorekwe gaorem@unisa.ac.za	Genomics, molecular biology and parasitology	Ms R Gaorekwe is a junior lecturer in the Department of Agriculture and Animal Health. She obtained her MSc at the University of South Africa. Her research focus is on molecular biology and genomics.	Molecular parasitology	MSc: 2
Rangeland/Pasture Science	Prof TJ Tjelele tjeletj@unisa.ac.za	Rangeland Ecology and Management	Prof Tlou Julius Tjelele is a Full Professor in the Department of Agriculture and Animal Health. He holds a PhD (Botany) from the University of KwaZulu-Natal. Prof Tjelele' research plant-herbivore interaction and factors governing vegetation dynamics, the nutritional value of forage legumes and alternative forage plants for animal production. His research strives to understand factors that underlie woody plant encroachment and its impact on livestock production. The ultimate goal is to apply ecological theory to the management of increasing woody plant species.	1. Rangeland ecology and management. 2. Plant-herbivore interaction 3. Ruminant feed creation from encroaching woody plants – implication for ecological rangeland management 4. Communal restoration 5. Conservation agriculture 6. Socio-ecological studies	PhD: 5 MSc: 10
ANIMALHEALTH					

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Animal Nutrition and Animal Health	Prof BG Mokolopi kgobebg@unisa.ac.za	Minerals research and assessment of safety and quality of feed supplements	Prof BG Mokolopi (PhD, M.Sc., Hons and B.Sc. (Animal Health) is an Associate Professor in the Department of Agriculture and Animal Health. She holds a PhD in Agriculture (Animal Health, obtained from the North-West University. Methodology expertise: Quantitative. Qualitative and Mixed methods	1. Minerals supplements in livestock. 2. Minerals Homeostasis 3. Assessment of feed safety and quality as a source of supplements. 4. Impacts of climate change on animal production and quality of animal food products. 5. Nutritional practices and combatting antimicrobial resistance through a One Health Strategy. 6. Aquaculture/ Marine studies. 7. Recently involved in collaborative research on Apiculture	MSc: 5 PhD: 6
Microbiology /Infectious diseases/Phy tomedicine	Dr PN Kayoka kabonpnk@unisa.ac.za	Zoonoses and others	Dr Kayoka is a senior lecturer in Animal Health with a PhD in Environmental Sciences focussing on Microbiology, epidemiology, and diagnosis of infectious diseases, zoonoses (Tuberculosis, brucellosis, and others), phytomedicine/ethnopharmacology antimicrobial resistance and drug development.	1. Antimycobacterial activity of plants derived and chemical compounds/drug development 2. Antimicrobial resistance patterns of different micro-organisms 3. Epidemiology and diagnosis of infectious diseases	MSc: 7 PhD: 1

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Veterinary Public Health/applied epidemiology	Prof JW Oguttu joguttu@unisa.ac.za		Prof James W. Oguttu a Veterinary Epidemiologists and a Full Professor in the Department of Agriculture and Animal Health. He holds a PhD from the University of Pretoria. His research focus is the epidemiology of food borne diseases and antimicrobial drug resistance in domestic animals and humans. He is also interested in application of epidemiological techniques to address problems of public health importance.	1. Epidemiology of Food borne diseases 2. Epidemiology of Antimicrobial drug resistance among human and animal isolates 3. Application of epidemiological techniques and study designs to address public health problems	MSc: 4 PhD: 3
Veterinary Public health	Dr TN Ndobeni ndobetn@unisa.ac.za	Veterinary public health and Epidemiology	Dr Tandile Ndobeni is a Senior Lecturer in the Department of Agriculture and Animal Health. She holds a MSc in Veterinary Science where her research focused on veterinary public health and epidemiology which she obtained from University of Pretoria.	1. Public health and epidemiology 2. One Health	MSc: 2
Ethnoveterinary plants Anthelmintic drugs	Dr BM Sakong sakonbm@unisa.ac.za	Antimicrobial activity of ethnoveterinary plants, Isolation of compounds,	Dr Bellonah Sakong is a Senior Lecturer in the Department of Agriculture and Animal Health. She holds a PhD from University of Pretoria. Her research interests	<i>Invitro</i> essays Isolation of compounds Anthelmintic and antimicrobial activities	MSc: 1 PhD: 1

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Isolation of compounds		helminth activity and ant-helminthic efficacy drugs	include Anthelmintic drugs and ethnoveterinary plants.		
Animal disease/health and nutrition	Dr CJ Smit smitcj@unisa.ac.za	Disease occurrence/prevalence. Alternative feeding	Dr CJ Smit is a Senior Lecturer in the Department of Agriculture and Animal Health. He obtained his PhD at the University of South Africa. His research focus is on Animal disease prevalence and alternative cattle feed sources.	1. Disease occurrence within a specific area with climatic and seasonal variability. 2. Dairy disease prevalence 3. Possible feed and food ingredients for potential use in animal feeds.	MSc-4 PhD-2
Veterinary Parasitology	Dr S Mbizeni mbizes@unisa.ac.za	Ticks and tick-borne diseases Veterinary Parasitology	Dr Sikhumbuzo Mbizeni is a Senior Lecturer in the Department of Agriculture and Animal Health. He holds a MSc, in Veterinary Science from the University of Pretoria. Currently studying PhD in Biological Sciences, with the University of KwaZulu-Natal.	1. Ecology of vector ticks of veterinary importance. 2. Surveillance of tick-borne diseases and parasites in livestock and wildlife	MSc: 4
Animal health and welfare	Dr JM Mokoele Mokoejm@unisa.ac.za	Pig herd health and production.	Dr Japhta Mokoele is a Senior Lecturer in the Department of Agriculture and Animal Health. He holds MMed Vet (<i>sui</i>) from the University of Pretoria. Currently, a	1. Pig herd health and diseases. 2. Food borne pathogens. 3. Antimicrobial use and resistance in production animals	MSc: 4

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			PhD candidate in Veterinary Science with the University of Pretoria.		
Animal Health Animal Diseases	Ms G Bentley ebentlga@unisa.ac.za	Primary Animal Health care in rural farmer Ticks & tick-borne diseases	Ms G Bentley is a Lecturer in the Department of Agriculture and Animal Health. She obtained her MSc, in Veterinary Science: Production Animals from the University of Pretoria. She is currently registered for a PhD in Animal Science with the University of Pretoria.	1. Socio-economic impact of Tick-borne diseases in rural & emerging farmers 2. Rural farmers husbandry and the effect on Trichomoniasis in bulls	MSc: 2
Veterinary Diagnostic and Veterinary Public health	Dr I Matle ematlei@unisa.ac.za	Zoonotic Bacterial pathogens	Dr I Matle is a Lecturer in the Department of Agriculture and Animal Health. He obtained his PhD at the University of South Africa.	1. Development and Validation of Diagnostic Tools for Priority Zoonotic and Foodborne Bacterial Pathogens 2. Genomic Surveillance and Antimicrobial Resistance (AMR) Profiling in Livestock and Animal Products 3. Risk Assessment and Control of Zoonotic Bacterial Pathogens in Food Value Chains 4. Environmental Health and Wastewater-Based Surveillance for Veterinary Public Health	MSc: 3 PhD: 3

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AGRICULTURAL ECONOMICS AND FOOD SECURITY					
Agricultural Economics	Prof PK Chauke echaukpk@unisa.ac.za	Agricultural Policy, Trade, Rural Development, Agricultural Finance. Agribusiness, Small and Emerging Farming and Climate Change	Prof PK Chauke who holds a PhD in Agricultural Economics with a focus on Land Policy is Distinguished Professor of Agricultural Economics in the Department of Agriculture and Animal Health. He held the position of Head of Department at the University of Venda for ten years where his research focus was on agricultural cooperatives, smallholder and emerging farming, land reform policy and climate change. He is a sought-after researcher for land claims by both public and private agencies countrywide, having successfully completed more than 20 restitution projects throughout the country. Presently he is engaged in a massive interdisciplinary study that seeks to enhance Communal Property Associations (CPAs) in South Africa.	1. Agricultural policy analysis: land, input, marketing, research and impact, 2. Trade: Regional and international. 3. Market analysis: local, regional, international and impact. 4. Agricultural capital: analysis and impact Small and emerging farming: analysis and impact	MSc: 7 PhD: 10
Agricultural Extension and Rural Development	Dr MMS Maake maakems@unisa.ac.za	Agricultural extension, food security, poverty alleviation, farmer support programs	Dr Maake is a Lecturer in the Department of Agriculture and Animal Health. He has PhD in Agriculture obtained from UNISA and is a rated researcher by NRF (Y2 Rating). Dr Maake has published extensively in peer review journals; and supervised	1. Evaluation of homestead and community gardens; and farmer support programs 2. The impact of smallholder farming on poverty alleviation and farmers' livelihoods.	MSc: 3 PhD: 3

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			and co-supervised over 12 Masters students to completion.	3. Access to- and the impact extension and advisory services	
Food Security	Dr M Masekoameng masekmr@unisa.ac.za	Food security. Household food and nutrition security	Mosima Masekoameng is a senior lecturer in the Department of Agriculture and Animal Health with a Masters in Agricultural Extension and a PhD in Rural Development from the University of Venda.	4. The impact of climate change on food security of small - holder and emerging farmers in South Africa. 5. The contribution of urban agriculture to food security.	-
Food security	Dr TP Mbombo-Dweba mbombtp@unisa.ac.za		Dr TP Mbombo-Dweba is a Senior Lecturer in the Department of Agriculture and Animal Health. She holds a PhD from Unisa. Her research focus is on Household Food Security through food-based strategies.	1. Interventions/strategies towards improving household food security. 2. Utilisation and consumption of indigenous/ traditional vegetables and fruit. 3. Interventions/strategies towards improving the production and consumption of pulses. 4. Food safety challenges at informal markets/ household level.	MSc: 3 PhD: 3
Agricultural Economics, Marketing	Dr DL Mthombeni mthomdl@unisa.ac.za	Agricultural Marketing and	Dr DL Mthombeni is a senior lecturer in the Department of Agriculture and	Agricultural Marketing (including informal marketing), climate change, commercialization of	MSc: 5 PhD: 3

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and value adding		Agribusiness Management	Animal Health. She holds a PhD in Agriculture at UNISA. Methodology expertise: Quantitative & Qualitative studies.	agricultural commodities, agricultural value chain and agro-processing.	
Agricultural Economics	Prof SS Tekana tekanss@unisa.ac.za	Socio-economic, climate change and food security research	Dr SS Tekana (PhD, M.Sc., B.Sc. (honours)) is a senior lecturer in the Department of Agriculture and Animal Health. Methodology expertise: Quantitative & Qualitative studies	1. Market participation of smallholder farmers in the agricultural value chain. 2. Sustainable land management practices for food security 3. Women empowerment in the agricultural sector to improve household food security and nutrition. 4. Interventions of grain producers' organizations on the productivity of smallholder agricultural producers 5. Adoption of agroforestry practices and climate change	MSc: 5 PhD: 4

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				mitigation strategies amongst smallholder farmers	
Agricultural Economics, and Agribusiness management	Dr PF Tshilowa tshilpf@unisa.ac.za	Climate Smart Agriculture (CSA), climate change, and land utilisation	Dr Tshilowa PF is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD degree in agricultural economics. Her research interests are climate-smart agriculture, climate adaptation strategies, agricultural land utilization, agricultural sustainability, natural resource management, climate change, and environmental management.	1. Climate Smart Agriculture (CSA) 2. Soil and water conservation 3. Climate adaptation strategies 4. Land utilisation 5. CSA's influence on input cost 6. Farming insurance	MSc: 3 PhD: 1
Agricultural Economics	Ms NM Masufi masufnm@unisa.ac.za	Agricultural Marketing, Bioenergy, Small and emerging farming	Ms MN Masufi is a Department of Agriculture and Animal Health lecturer. She holds an MSc in Agriculture and is currently studying PhD with UNISA. The research focus is on bioenergy and marketing for smallholder farmers. Methodology expertise: Mixed method studies Qualitative and qualitative studies	1. Agricultural marketing for smallholder farmers in SA 2. Participation of smallholder farmers in the bioenergy sector	MSc: 2

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Agricultural Economics	Dr MJ Mamashila mamasmj@unisa.ac.za	Agricultural production Economics, Risk and Decision research Agribusiness and value Adding, Marketing, International trade, Climate change, socio-economic research, Trend analyses research	Dr. Mamashila is a lecturer in the Department of Agriculture and Animal Health: - PhD Agric Economics, UNISA - MSc Agric Economics, UNISA - Master of Economics, Japan - Honours Agric Economics, UL - BCom Economics, UNIVEN Methodology expertise: Quantitative and Qualitative studies	- Economic and Technical Efficiency - Market Participation - Profitability and sustainability - Risk and decision analysis - Trade and development - The economics of climate change in agriculture	MSc: 2
Agricultural Extension and Rural Development	Prof RH Khwidzhili khwidrh@unisa.ac.za	Sustainable Agriculture (Practices), Agricultural Extension, Rural Development, Food Security, Livelihood Agricultural Policies and small scale and emerging famers development.	Professor Khwidzhili RH is an Associate Professor of Agricultural Extension and Rural Development within the Department of Agriculture and Animal Health at UNISA. He holds a PhD in Agricultural Extension and Rural Resource Management from University of KwaZulu Natal. Prior joining UNISA, he was a Senior Lecturer and Program Leader for	- The impact of development activities on agricultural land in the city of Tshwane Municipality, Gauteng Province. - The impact of agricultural practices in special schools on food security and income generation in Capricorn District Municipality, Limpopo Province,	Masters: 2 PhD:

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			Agricultural Extension at The University of Mpumalanga. His research focus is on Agricultural Extension, Food Security, Rural Development, Urban Agriculture and Sustainable Agricultural Practices.		
PLANT SCIENCE					
Legume crops	Prof G Prinsloo prinsg@unisa.ac.za	Propagation and cultivation of indigenous crops and the effects on their chemical profile and biological activity	Prof Gerhard Prinsloo is a professor in the Department of Agriculture and Animal Health. He holds a PhD from the University of Pretoria. His research focus is on quality assessment of indigenous plants and identification of important secondary metabolites.	1. Propagation of indigenous crops with commercial potential 2. Determine the effects of cultivation on the yield and chemical profile and biological activity 3. Identify the important secondary metabolites as affected by these methodologies 4. Identification of compounds with beneficial or adverse effects 5. Determine the effect of soil and soil organisms on plant survival and establishment	

Legume crops	Dr K Mohale mohalkc@unisa.ac.za	Agronomy, Plant metabolomics, Grain legume crop Nitrogen fixation	Dr Keletso Mohale is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD from UNISA. Her research focus is on sustainable agronomic practices on different grain legume crops.	1. Metabolomics and nitrogen fixation on different grain legume crops 2. Inoculation (rhizobial and plant growth promoting rhizobacteria) 3. Biostimulant application (organic) Nanoparticle application as sustainable agro-inputs	MSc: 2 PhD: 1
Indigenous crops research	Dr L Nemadodzi nemadle@unisa.ac.za	Propagation and cultivation of indigenous crops and the effects on their chemical profile and biological activity	Dr Nemadodzi is a Senior Lecturer in the Department of Agriculture and Animal Health. She holds a PhD in from UNISA. Her research focus is the propagation and cultivation of medicinal plants, indigenous vegetables, and Cannabis and the assessment of soil types and soil organisms on the chemical profiles and biological activity.	1. Propagation of indigenous crops with commercial potential 2.. Determine the effects of cultivation on the yield and chemical profile and biological activity 3. Identify the important secondary metabolites as affected by these methodologies 4. Identification of compounds with beneficial or adverse effects 5. Determine the effect of soil and soil organisms on plant survival and establishment	MSc 3 PhD 2

Indigenous crops research	Dr N Nkobole nkobon@unisa.ac.za	Plant metabolomics	Dr Nkobole is a senior lecturer in the Department of Agriculture and Animal Health. She holds PhD from UNISA. Her research interests include metabolomics and the anti-diabetic properties of South African indigenous vegetables.	1. Using metabolomics technologies to identify antidiabetic biomarkers in indigenous vegetables from South Africa. 2. The effect of biostimulants on the biological activity of indigenous vegetables, particularly in relation to type 2 diabetes mellitus.	MSc 4 PhD 2
Indigenous crops research	Dr MN Msomi msomimn@unisa.ac.za	Crop Science, plant metabolomics, Indigenous Plants	Mr Msomi is a lecturer in the Department of Agriculture and Animal Health. He holds a PhD from the university of South Africa. His research focus is assessment of plant biostimulants (natural compounds) to improve stress tolerance on various crops/plants.	1. Metabolomics in commercial and indigenous crops. 2. Determine the effect of biostimulants (natural compounds) on chemical profile and biological activity of various crops/plants. 3. Determine the effect of drying and storage on indigenous plants.	MSc: 2
Agronomy and soil science	Dr ME Malobane malobme@unisa.ac.za	Soil productivity and sustainable production of field crops	Dr M.E Malobane is a senior lecturer in the Department of Agriculture and Animal Health. He holds a PhD from University of South Africa. His research focus is on soil science and principles of agronomy, with the aim	1. Sustainable agronomic practices. 2. Implementation of climate smart agriculture techniques to enhance marginal soils	Masters: 3 PhD: 1

			of establishing sustainable production systems that preserve soil as a natural resource, mitigate climate change while enhancing crop yields for both food security and biofuel production.	productivity and yields of field crops. 3. Application of X-ray computed tomography in soil physics 4. Soil fertility and carbon sequestration 5. Soil quality	
Plant-pest interactions	Dr PP Sibisi sibispp@unis.ac.za	Molecular profiling of plants interaction with pests	Dr Phumzile Sibisi is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD from University of Johannesburg. Her research focuses on the molecular interaction between plants and pests.	1. Plant priming against pest attack 2. Gene expression profiling of crops under pest attack. 3. Metabolite profiles of crops under pest attack	MSc: 3 PhD: 2
Plant-microbes interactions	Prof K Ntushelo ntushk@unisa.ac.za	Plant-microbe interaction, molecular and biochemical characterization	Prof Khayaletu Ntushelo is a Professor in the Department of Agriculture and Animal Health. He holds a PhD from the University of Florida, USA.	1. Plant-microbe interaction, molecular and biochemical characterization	MSc: 0 PhD: 1

Indigenous crops research	Dr N Nogemane nogemn@unisa.ac.za	Propagation, Cultivation, postharvest practices and plant metabolomics	Dr Noluyolo Nogemane is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD from UNISA. Her research focus is propagation, cultivation and postharvest management of medicinal plants and assessment of these effects on the chemical profiles of the plants.	2. Propagation of cuttings using various technologies. 3. Identify changes in the chemical profile and bioactivity of plants in response to cultivation, environmental and postharvest operations	MSc: 3 PhD: 2
Plant Breeding and Genetics (Plant-environmental stress interaction)	Dr S Figlan figlas@unisa.ac.za	Plant*environmental stress interaction (Plant molecular characterisation and breeding of Indigenous and Modern crops: Fruits, Vegetables and Field crops)	Dr S Figlan is a senior lecturer in the Department of Agriculture and Animal Health. She holds a PhD in Plant Breeding from the University of Kwa-Zulu Natal, and her research focus is mainly on molecular plant breeding and genetic improvement	1. Plant*environmental stress interaction. 2. Molecular characterisation making use of advanced omics tools 3. Plant breeding	MSc: 3 PhD: 3