

# SOIL, CLIMATE AND WATER



## AGRICULTURAL RESEARCH COUNCIL

The first 3 columns ("Research Focus Area", "Area of Expertise" and "Commodity") can be filtered to refine your search.

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<input type="checkbox"/> Research Focus Area	Area of expertise	Commodity	Core activities	Contact	E-Mail	Telephone number	Location
Soil, Climate and Water	Public Relations Officer	Enquiries	* Public Relations	Ms Adria Laas	adril@arc.agric.za	082 445 6269	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* GIS products and services; * Statistical and Ecological modelling; * Geographic Information Sciences (GIS and Earth Observation); * Large Mammal Ecology, Data analysis & Spatial Ecology.	Dr George Chirima	ChirimaJ@arc.agric.za	(012) 310 2672	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Experience in Remote Sensing (active and passive sensors); * Experience in hydrological modelling; * Close-Range Photogrammetry.	Dr Mohamed Abd Elbasit	mohamedahmedm@arc.agric.za	(012) 310 2579	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Biocontrol of Invasive Alien Plants; * Plant Biodiversity & Remote Sensing; * Environmental Pollution and Restoration (Phytoremediation).	Dr Solomon Newete	newetes@arc.agric.za	(012) 310 2638	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Land cover; * Geographical information systems (GIS); * Remote sensing; * Environmental studies & monitoring; * Carbon stocks & modelling.	Dr Adolph Nyamugama	nyamyamaa@arc.agric.za	(012) 310 2582	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Processing and automation of Geospatial data; * Programming and Statistical data analysis (Matlab, R & Python); * Remote sensing data processing (ERDAS and ENVI).	Dr Cilence Munghemezulu	munahemezuluc@arc.agric.za	(012) 310 2587	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* GIS, Remote Sensing, Modelling, Crop statistics & Food Security.	Harold Weepener	weepenerh@arc.agric.za	(012) 310 2505	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Remote sensing; * Microwave, multispectral & hyperspectral imaging modelling; * Applications in Agriculture monitoring and hydrology; * Geographic Information System (GIS) - modelling; * Data analysis & mapping.	Richard Tswai	richard@arc.agric.za	(012) 310 2584	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* Digital hyper spectral remote sensing system (ARCsense); * Low-level remote sensing systems; * Electronic control and measuring systems.	Eric Economon	eric@arc.agric.za	(012) 310 2562	Arcadia, Pretoria
Soil, Climate and Water	Geoinformation Science	Environmental	* GIS products and services	Marjan van der Walt	marjan@arc.agric.za	(012) 310 2578	Arcadia, Pretoria

Soil, Climate and Water	Microbiology & Biotechnology	Environmental	<ul style="list-style-type: none"> <li>* Microbiological research &amp; Statistical analysis;</li> <li>* Molecular methods <ul style="list-style-type: none"> <li>- PCR, Denaturing Gradient Gel Electrophoresis &amp; cloning;</li> </ul> </li> <li>* Bioinformatics <ul style="list-style-type: none"> <li>- Phylogenetics, next generation sequencing;</li> </ul> </li> <li>* Biochemical testing &amp; Light &amp; electron microscopy;</li> <li>* Flow cytometry &amp; Gas chromatography (GC);</li> <li>* Bioreactor design &amp; optimization, Phycology &amp; Entomology.</li> </ul>	<a href="#">Dr Ashira Roopnarain</a>	<a href="mailto:roopnaraina@arc.agric.za">roopnaraina@arc.agric.za</a>	(012) 310 2650	Arcadia, Pretoria
Soil, Climate and Water	Wetlands	Environmental	<ul style="list-style-type: none"> <li>* Wetland Research &amp; Remote Sensing;</li> <li>* Environmental Management.</li> </ul>	<a href="#">Dr Althea Grundling</a>	<a href="mailto:althea@arc.agric.za">althea@arc.agric.za</a>	(012) 310 2561	Arcadia, Pretoria
Soil, Climate and Water	Soil and water science	Environmental	<ul style="list-style-type: none"> <li>* Water quality interpretation</li> <li>* Salinization and waterlogging of irrigated soils;</li> <li>* Irrigation suitability &amp; planning;</li> <li>* Soil erosion, pollution and rehabilitation.</li> </ul>	<a href="#">Dr Piet Nell</a>	<a href="mailto:pnell@arc.agric.za">pnell@arc.agric.za</a>	(012) 310 2600	Arcadia, Pretoria
Soil, Climate and Water	Water Science	Environmental	<ul style="list-style-type: none"> <li>* Quantifying water balance <ul style="list-style-type: none"> <li>- rainwater harvesting and conservation practices</li> </ul> </li> <li>* Crop growth modelling &amp; technology exchange.</li> </ul>	<a href="#">Dr Kobus Anderson</a>	<a href="mailto:andersonk@arc.agric.za">andersonk@arc.agric.za</a>	(012) 310 2596	Arcadia, Pretoria
Soil, Climate and Water	Water science	Environmental	<ul style="list-style-type: none"> <li>* Water Resource Degradation Assessments;</li> <li>* EIA &amp; ERA &amp; Bird impact studies.</li> </ul>	<a href="#">Lianda Lötter</a>	<a href="mailto:lotterl@arc.agric.za">lotterl@arc.agric.za</a>	(012) 310 2538	Arcadia, Pretoria
Soil, Climate and Water	Waste management	Environmental	<ul style="list-style-type: none"> <li>* Environmental Science <ul style="list-style-type: none"> <li>- winery wastewater treatment;</li> <li>- solid waste management &amp; composting;</li> <li>- Botany (Plant ecological physiology).</li> </ul> </li> </ul>	<a href="#">Nwabisa Masekwana</a>	<a href="mailto:maselwanan@arc.agric.za">maselwanan@arc.agric.za</a>	(012) 310 2693	Arcadia, Pretoria
Soil, Climate and Water	Soil science	Soil	<ul style="list-style-type: none"> <li>* Soil classification, mapping, interpretations &amp; biotextiles;</li> <li>* Soil rehabilitation (especially coal mine soils);</li> <li>* Soil survey project management;</li> <li>* Environmental assessment and land evaluation;</li> <li>* Soil survey and land capability course presentation;</li> <li>* Ground penetrating radar.</li> </ul>	<a href="#">Dr Garry Paterson</a>	<a href="mailto:garry@arc.agric.za">garry@arc.agric.za</a>	(012) 310 2601	Arcadia, Pretoria
Soil, Climate and Water	Agronomy	Soil	<ul style="list-style-type: none"> <li>* Agronomy, Conservation agriculture &amp; Agrophysics</li> </ul>	<a href="#">Dr Adornis Nciizah</a>	<a href="mailto:nciizaha@arc.agric.za">nciizaha@arc.agric.za</a>	(012) 310 2684	Arcadia, Pretoria
Soil, Climate and Water	Soil and water science	Soil	<ul style="list-style-type: none"> <li>* Carbon, soil nutrient &amp; Nitrogen dynamics;</li> <li>* Conservation agriculture;</li> <li>* Greenhouse gas emissions;</li> <li>* Sewage sludge application to agricultural soil.</li> </ul>	<a href="#">Dr Corrie Swanepoel</a>	<a href="mailto:swanepoelc@arc.agric.za">swanepoelc@arc.agric.za</a>	076 618 0605	Arcadia, Pretoria
Soil, Climate and Water	Soil and water science	Soil	<ul style="list-style-type: none"> <li>* Soil Science;</li> <li>* Sustainable, Conservation &amp; Climate Smart Agriculture;</li> <li>* Rural development &amp; food security;</li> <li>* Agro-processing &amp; action research methodology.</li> </ul>	<a href="#">Mmakgabo Matlou</a>	<a href="mailto:mmakgabom@arc.agric.za">mmakgabom@arc.agric.za</a>	(012) 310 2655	Arcadia, Pretoria
Soil, Climate and Water	Analytical Services	Soil	<ul style="list-style-type: none"> <li>* Soil fertility management;</li> <li>* Soil analysis &amp; fertilizer recommendation;</li> <li>* Soil survey &amp; plant production.</li> </ul>	<a href="#">Dr Goodman Jezile</a>	<a href="mailto:jezileg@arc.agric.za">jezileg@arc.agric.za</a>	(012) 310 2589	Arcadia, Pretoria
Soil, Climate and Water	Analytical Services	Soil	<ul style="list-style-type: none"> <li>* Plant analysis, compost analysis, CNHS analysis &amp; ICP;</li> <li>* Trace elements &amp; heavy metals.</li> </ul>	<a href="#">Mike Philpott</a>	<a href="mailto:mike@arc.agric.za">mike@arc.agric.za</a>	(012) 310 2617	Arcadia, Pretoria
Soil, Climate and Water	Soil science	Soil	<ul style="list-style-type: none"> <li>* Soil degradation and soil erosion</li> </ul>	<a href="#">Dr Adornis Nciizah</a>	<a href="mailto:NciizahA@arc.agric.za">NciizahA@arc.agric.za</a>	(012) 310-2684	Arcadia, Pretoria

Soil, Climate and Water	Agrometeorology	Weather/Climate	<ul style="list-style-type: none"> <li>* Climate Smart Agriculture;</li> <li>* Conservation Agriculture and Science Field Shops;</li> <li>* Rural Appraisal and Action Research methods;</li> <li>* Seasonal forecasts in the semi-arid regions of Africa;</li> <li>* Science based climate services;</li> <li>* Crop-Climate Modelling;</li> <li>* Production and water use of crops;</li> <li>* Climate change applications;</li> <li>* Water harvesting and irrigation scheduling,</li> <li>* Agricultural Meteorology;</li> <li>* Drought adaptations and water use of crops.</li> </ul>	Prof Sue Walker	<a href="mailto:walkers@arc.agric.za">walkers@arc.agric.za</a>	(012) 310 2577	Arcadia, Pretoria
Soil, Climate and Water	Agrometeorology	Weather/Climate	* Agro-meteorology, Meteorology, Climatology	Dr Johan Malherbe	<a href="mailto:johan@arc.agric.za">johan@arc.agric.za</a>	(012) 310 2661	Arcadia, Pretoria
Soil, Climate and Water	Agrometeorology	Weather/Climate	<ul style="list-style-type: none"> <li>* Weather and climate information dissemination methods;</li> <li>* Monthly rainfall forecast.</li> </ul>	Obed Phahlane	<a href="mailto:phahlane@arc.agric.za">phahlane@arc.agric.za</a>	(012) 310 2520	Arcadia, Pretoria
Soil, Climate and Water	Agrometeorology	Weather/Climate	<ul style="list-style-type: none"> <li>* Flight logistics, imagery and geo-referencing;</li> <li>* Monitoring climate network.</li> </ul>	Chris Kaempffer	<a href="mailto:chrisk@arc.agric.za">chrisk@arc.agric.za</a>	(012) 310 2560	Arcadia, Pretoria