



## Water Science

*The programme strives to use a multi-disciplinary approach in water resource management and information, applying research and technology development to promote the efficient and productive use of water in agriculture, in sustainable natural resources management and to support socio-economic well-being.*

### Activities

#### Water Information System for Agriculture

##### AGROECOLOGY PLATFORM

##### Water quality

- Quantify micro-biological, chemical, and physical quality of water in agro-ecological systems
- Monitor waterlogging and salinity under irrigation
- Information database of water quality in catchments
- Knowledge hub of emergent contaminants

##### Water quantity

- Assess available water sources for sustainable development

#### Focal point for Plant-Soil-Water Relations

##### Plant-soil-water interactions

- Efficient utilisation of water in rain-fed and irrigated agricultural systems, forestry and livestock production systems
- Quantify and improve plant-soil-water relations (agricultural crops and ecosystems)
- Assess linkage between water-energy-food security

#### Agricultural Water Resource Management

##### Management

- Promote sustainable management of agricultural resources: soil, water and related vegetation; including land use and climate change impacts in catchments
- Promote sustainable water resource management under dryland crop production and irrigation

##### Technologies

- Monitor and evaluate applicable climate-smart agriculture (CSA) and conservation agriculture (CA) technologies

##### Governance

- Assess governance and institutional arrangements for water resource management

**Contact Person:** Dr Althea Grundling  
Tel: 012 310 2561 • E-mail: [althea@arc.agric.za](mailto:althea@arc.agric.za)

#### ARC-Soil, Climate and Water

600 Belvedere Street, Arcadia, 0083  
Private Bag X79, Pretoria 0001  
Tel: 012 310 2500 • Fax: 012 323 1157  
Website: [www.arc.agric.za](http://www.arc.agric.za)

**For more information contact:**  
Adri Laas - Public Relations Officer  
E-mail: [adril@arc.agric.za](mailto:adril@arc.agric.za)

