



AGRICULTURE AND AGRIBUSINESS

Soil Water Management and Irrigation Scheduling

3 day course

Classroom, online or in-house

Course overview

Most irrigation is applied on a fixed rotation because it is easier than deciding, which means water goes on when it is convenient rather than when the crop needs it, and both over and under irrigation cost yield. This course replaces the rotation with a decision. Delegates work through soil water: field capacity, permanent wilting point, available water and the readily available fraction a crop can use without stress. Soil texture and rooting depth are related to the water a field can actually hold. Measurement follows across tensiometers, capacitance and neutron probes, gravimetric sampling and the placement that determines whether a reading means anything. Water balance scheduling is covered, using evapotranspiration and rainfall to track depletion. Crop stress indicators and deficit irrigation are addressed, including where deficit is a deliberate strategy. Salinity and leaching requirement are covered. Waterlogging and aeration follow. The course closes on record keeping, on scheduling across a whole farm and on judging whether the schedule improved anything.

What you will learn

- Apply field capacity, wilting point and readily available water
- Relate soil texture and rooting depth to storable water
- Place and read tensiometers, capacitance and neutron probes
- Track depletion through a water balance
- Use crop stress indicators and apply deficit irrigation deliberately
- Calculate leaching requirement and manage salinity
- Schedule across a farm and evaluate whether it improved results

Who should attend

- Farm managers and irrigation supervisors
- Agronomists advising on water management
- Extension officers supporting irrigators
- Agricultural engineers designing schedules
- Estate managers accountable for water cost

Course outline

- 01 Convenience instead of a decision
- 02 Field capacity, wilting point and available water
- 03 Soil texture, rooting depth and storage
- 04 Tensiometers, capacitance and neutron probes
- 05 Probe placement and meaningful readings
- 06 Water balance scheduling
- 07 Crop stress and deficit irrigation
- 08 Salinity, leaching, waterlogging and evaluation

Upcoming dates



Dates	Venue	Format	Fee per delegate
28 to 30 October 2026	Kigali, Rwanda	Classroom	USD 995
2 to 4 November 2026	Mbabane, Eswatini	Classroom	R14,950
7 to 9 December 2026	Accra, Ghana	Classroom	USD 995
30 December 2026 to 1 January 2027	Windhoek, Namibia	Classroom	R14,950

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

AfriScience Group | +27 61 536 6531 | info@afriScience.co.za | Pretoria, Gauteng, South Africa