



## Short CV

Nkosinathi Kaptein, PhD (Agrometeorology)

Lecturer: Agrometeorology: Soil, Crop and Climate Sciences

### Courses Presented

Module code

AGR1554 – Physical and Mechanized Principles in Agriculture

CLIM3734 - Micrometeorology

CLIM4874/6874 – Advanced Micrometeorology and Instrumentation

### Research Focus

Micrometeorological instrumentation in agriculture

Sustainable use of water resources in agriculture

Catchment water management for downstream water users efficiency

Water-use by agricultural crops

### Most Recent Publications

1. Kaptein ND, Clulow AD, Everson C, Toucher M, Germishuizen I. 2024. The influence of different tree species and age on the surface water balance of a small commercial forestry catchment. *Journal of Hydrology: Regional Studies* 54: 101893.
2. Kaptein ND, Toucher M, Clulow AD, Everson C, Germishuizen I. 2024. Water use and hydrological implications of fast-growing *Eucalyptus grandis* x *E. urophylla* hybrid in northern Zululand, South Africa. *Water SA* 50: 57-68.
3. Kaptein ND, Everson C, Clulow AD, Toucher M, Germishuizen I. 2023. Transpiration rates from a matured *Eucalyptus grandis* x *E. nitens* clonal hybrid and *Pinus elliottii* plantation near the Two Streams research catchment, South Africa. *Hydrological Earth Systems Science* 27: 4467-4484.



4. Kaptein ND, Everson C, Clulow AD, Toucher M, Germishuizen I. 2023. Changes in energy balance and total evaporation with age, and between two commercial forestry species in South Africa. *Journal of Hydrology* 626: 130127.
5. Kaptein ND, Clulow AD, Toucher M, Everson C, Dovey SB, Germishuizen I. 2023. Plantation water productivity ( $PWP_{wood}$ ) and not water use efficiency (WUE) as the measure of commercial plantation yield improvement: a review. *Southern Forests: a Journal of Forest Science* 85: 1-10.

