UNIVERSITY OF THE FREE STATE UNIVERSITEIT VAN DIE VRYSTAAT YUNIVESITHI YA FREISTATA



Short CV

Linus Franke, PhD

Academic Department Head



Courses Presented

SCCS3724 - Research Methodologies in Soil, Crop and Climate Sciences

SCCS4824 / 6824 – Modelling Soil, Crop and Climate Interactions – Undergraduate / Postgraduate

CLIM7908 - Sustainability and climate change adaptation of agricultural systems – Postgraduate

CCSD7900 - Policy, educational and economic aspects of climate change - Postgraduate

Research Focus

A wide array of research topics related to crop production, food security, climate change and agricultural sustainability. Key tools I have used in my work include field experiments, farmer surveys, crop and farm simulation modelling, and advanced data analyses. Linking detailed crop research to wider questions about sustainability and agricultural development is a key strength of mine. Currently, I am heading a research chair in Climate Change and Agriculture.

Most Recent Publications

- 1. Franke AC, Machakaire ATB, Mukiibi A, Kayes MJ, Swanepoel PA, Steyn JM (2023) Infield assessment of the variability in water and nutrient use efficiency among potato farmers in a semi-arid climate. Frontiers in Sustainable Food Systems 7: 1-15 DOI 10.3389/fsufs.2023.1222870
- Mukiibi A, Franke AC, Steyn JM (2023) Determination of Crop Coefficients and Evapotranspiration of Potato in a Semi-Arid Climate Using Canopy State Variables and Satellite-Based NDVI. Remote Sensing 15: 4579. https://doi.org/10.3390/rs15184579
- 3. Mararakanye N, Le Roux JJ, Franke AC (2022) Long-term water quality assessments under changing land use in a large semi-arid catchment in South Africa. Science of the Total Environment 818: 151670. http://dx.doi.org/10.1016/j.scitotenv.2021.151670

- Franke AC, Kotzé E (2022) High-Density grazing in southern Africa: Inspiration by nature leads to conservation? Outlook on Agriculture 51: 67-74. DOI: 10.1177/00307270221075060
- Machakaire ATB, Steyn JM, Franke AC (2021) Assessing evapotranspiration and crop coefficients of potato in a semi-arid climate using Eddy Covariance techniques. Agricultural Water Management 255: 107029. https://doi.org/10.1016/j.agwat.2021.107029

Fun Fact