



11 April 2026
09h00

Onkgopotse Tiro Hall,
University of Limpopo

FACULTY OF SCIENCE AND AGRICULTURE
DOCTOR OF PHILOSOPHY

Phehla Mpho Piet



Valuing solutions for Africa

CITATION

Mpho Phehla investigated the potential of nanomicro nutrient technology to reduce nitrogen fertilizer input and disease incidence in Irish potato. The results revealed that nitrogen, combined with nanomicro nutrients, enhanced tuber yield and reduced the severity of Verticillium wilt. Applying 240 kgN ha⁻¹ with nanomicro nutrient produced the highest tuber yields. However, applying a lower nitrogen rate of 160 kgN ha⁻¹, in combination with nanomicro nutrients, resulted in a yield that was 90-95% of the yield at sole 240kgN ha⁻¹ without nanomicro nutrients. This research contributes to responsible consumption and sustainable solutions. The work has resulted in two high-impact publications and presentations at multiple conferences.