FACULTY OF BIOSCIENCE ENGINEERING

The Chancellor of Ghent University has the honour of inviting you to attend the public defense of the doctoral dissertation of

Lidya Samuel

Title of the doctoral dissertation:

Drivers and barriers to farmers' intention to adopt Orange-Fleshed Sweet Potatoes in Ethiopia

The public defense will take place on 20th January 2026 at 17:00 in the Azalea, room A0.1

at Campus Coupure, Coupure Links 653, 9000 Ghent.

There will be a contiguous reception to which you are heartily invited. Please confirm your attendance before the 16th of January to: Lidyasamuel.abayneh@ugent.be
The defense can be followed online: Please click here

Dissertation supervisors

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Abstract of the doctoral research

Orange-fleshed sweet potato (OFSP) is a biofortified crop with significant potential to address vitamin A deficiency in low-income settings; however, its adoption and sustained use by smallholder farmers remain limited and context-dependent. Food and farming systems in sub-Saharan Africa are increasingly exposed to climate shocks, price volatility, and structural poverty, which interact with behavioral, institutional, and market constraints to influence how farmers respond to new technologies. In Ethiopia, where root and tuber crops already play an important role in smallholder livelihoods, OFSP offers both nutritional and agronomic benefits, but uptake varies across communities and over time. This PhD research examines how opportunity, motivation, and ability factors jointly influence smallholders' decisions to adopt and continue cultivating OFSP, with particular attention to the role of agronomic training, information provision, and multi-stakeholder perceptions about OFSP adoption. Using a multi-method approach that includes surveys, qualitative experiments, interviews, and stakeholder analysis, the thesis draws on behavioral frameworks such as the Motivation–Opportunity–Ability (MOA) model, the Technology Acceptance Model (TAM), and the Theory of Planned Behavior (TPB) to explore farmers' perceptions of benefits, ease of use, risks, and social norms related to OFSP. The research focuses on how training and information shape these perceptions and how they relate to farmers' adoption decisions and yield outcomes within the Ethiopian smallholder context. The findings aim to support governments, NGOs, and development partners in designing more behaviorally informed interventions that go beyond simple seed distribution to strengthen farmers' knowledge, skills, and willingness to engage with biofortified crops. By providing evidence on how agronomic training and farmers' perceptions interact to influence OFSP adoption and production performance, the research seeks to inform more effective strategies for scaling nutrition-sensitive agriculture in Ethiopia and, by extension, in similar smallholder farming systems in sub-Saharan Africa.

Brief Curriculum Vitae

Lidya Samuel is a PhD research fellow at Ghent University in Belgium. She holds both a Master's and a Bachelor's degree in Agricultural Economics (with great distinction) from Haramaya University in Ethiopia. With over a decade of professional experience in international NGOs, global consultancy firms, and governmental organizations, she has developed expertise in nutrition-sensitive agriculture, food security, sustainable livelihoods, climate-smart agriculture, and value chain development. She is a recipient of the Special Research Fund (BOF) from the Flemish Government, awarded to promising researchers from developing countries. Lidya has published in international peer-reviewed journals, presented at global conferences, and supervised Master's theses.