

Initiative Excellence in Africa 100 PhDs for Africa



## Bi Diangoné Fabrice TRA

Université Félix Houphouët-Boigny d'Abidjan / Centre d'Excellence Africain sur le Changement Climatique, la Biodiversité et l'Agriculture Durable (UFHB / CEA-CCBAD), Côte d'Ivoire



Research field
Sustainable Agriculture

## PhD title

Role of organic amendment in arbuscular mycorrhizal fungi-plant relationships for sustainable vegetable production in the forest-savanna transition zone of Côte d'Ivoire: case of african eggplant (Solanum Macrocarpon)





## Keywords

- Regenerative Agriculture
- Compost
- Arbuscular Mycorrhizal Fungi
- Water and Mineral Nutrition

## Summary

In Côte d'Ivoire, poor agricultural practices coupled with drought induced by climate change have led to soil degradation and decreased crop yields, threatening food security. Compost, effective for soil regeneration, faces limited adoption due to high recommended doses. To reduce these doses, this study proposes an alternative approach: applying low doses of compost combined with inoculating plants with arbuscular mycorrhizal fungi. These fungi, living in plant roots, are known for enhancing soil structure and nutrient uptake by host plants. African eggplant, the most consumed local vegetable, will serve as the case study. The aim is to assess the impact of this symbiosis on degraded soils and on the water and mineral nutrition of eggplant.



Supervisor Prof. Edson Lezin BOMISSO CEA-CCBAD/UFHB, Côte d'Ivoire



Co-supervisor Prof. Meret AEPPLI