African Poultry Veterinary Science

Improving Soil Health Through Agroecological Practices in Ghana: A Comparative Study

Yaa Asante[1,2], **Kofi Adofo**[3,4]

[1] Council for Scientific and Industrial Research (CSIR-Ghana)

[2] Accra Technical University

[3] Department of Soil Science, Accra Technical University

[4] Department of Animal Science, Council for Scientific and Industrial Research (CSIR-Ghana)

Published: 04 October 2000 | **Received:** 04 June 2000 | **Accepted:** 26 August 2000

Correspondence: yasante@gmail.com

DOI: 10.5281/zenodo.18707355

Author notes

Yaa Asante is affiliated with Council for Scientific and Industrial Research (CSIR-Ghana) and focuses on Agriculture research in Africa.

Kofi Adofo is affiliated with Department of Soil Science, Accra Technical University and focuses on Agriculture research in Africa.

Abstract

Soil health in Ghana is critical for sustainable agricultural productivity, yet many farmers rely on conventional farming practices that can lead to soil degradation. Agricultural extension workers conducted surveys in four regions, collecting data on farmers' practices, soil nutrient levels, and crop yields over two years. Statistical analysis was performed using a linear regression model with robust standard errors to account for potential confounders. Compared to traditional farming methods, intercropping and compost application showed significant improvements in soil organic matter content (average increase of 40% compared to control plots). Agroecological practices are effective in improving soil health and fertility in Ghanaian agricultural settings. Farmers should be encouraged to adopt these sustainable practices through extension programmes, supported by government incentives. Soil Fertility, Agroecology, Intercropping, Compost Application, Linear Regression The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Geography, Africa, Sustainability, Fertility, Agroecology, Ecosystems, Conservation Agriculture*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge