

Review of: "Enhancing Cocoa Crop Resilience in Ghana: The Application of Convolutional Neural Networks for Early Detection of Disease and Pest Infestations"

Aliyu Abdu¹

¹ Kano State University of Technology

Potential competing interests: No potential competing interests to declare.

Title: There should be the word(s) “case study” or “review” in the title if it is meant to be a review article.

Abstract is too wordy and provides no sufficient information on the technical concepts of the reviewed research works, the data used, and the methodologies adopted, common results, and outcomes/conclusions drawn.

Introduction is a bit unorganized, and there's some repetition of points. Consider rearranging it, starting with a general overview, then some brief-focused literature, followed by some new concepts (of CNNs) used, and finally putting forward your proposal/work/importance of your work.

Literature review, Methods, Results, etc. are disorganized and very difficult to follow. Firstly, start with CNNs and AI (clearly differentiate the two). Then, the literature review section should ideally be sub-sectionalized into 1. early works that involved the use of CNN in cocoa disease detection and the types of training data used. 2. The types of CNN with respect to training methods (from scratch or transfer learning) for application in cocoa research. 3. The outcomes of results (clearly using technical data/numbers reported) and what they mean.

Challenges and future directions and the remaining sections are not clear. They lack a clear and concise delivery, especially for the technical part, of ways forward or possible solutions to problems highlighted. Please consider further reviewing the technical concepts of CNN in cocoa pest/disease detection and add the necessary information. Referencing is also not sufficient.

General observation:

There is some confusion as to the relationship between CNN and AI. The article itself is not well written to the level of a proper research article. There is also confusion as to what kind of article it is, a conceptual article or a review paper?

The manuscript should be returned to the author for general improvement.