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

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Potential competing interests: No potential competing interests to declare.

1. The author should show pictorially various kinds of cocoa plant diseases and reasons for them in the manuscript.
2. What are the common cocoa plant disease data acquisition methods, and what public datasets are available that should be included in the manuscript?
3. As the author mentions many times in the manuscript, “Cocoa farming is a critical sector in Ghana's economy and the global chocolate supply,” the author mentions all previous years' statistics related to cocoa farming in Ghana, like Production (per year), Land Area, Income, Government Support, and Challenges.
4. The literature review section is ambiguous, and it is difficult to make sense of what the authors are trying to communicate. It would be better to maintain and include a separate table after the review section and include the following heads in the table, which show the comparative analysis of previous work done in this domain or different related domains.

Dataset used, Model Accuracy, Approach, Methodology, Challenges

1. The author shows the steps of the proposed approach graphically in the manuscript, which interprets how Artificial Intelligence (AI) and CNN will work for the early detection of disease and pest infestations for better understanding.
2. The Abstract section is ambiguous, and it is difficult to make sense of what the authors are trying to communicate.
3. There is no proper comparative analysis of CNN activation functions: ReLU (Rectified Linear Unit), sigmoid, and tanh. Justify which type of activation function would be best suited for this problem domain.
4. How transfer learning is useful for this problem domain. Justify in the manuscript.
5. Basic CNN architecture is missing in the manuscript.