

REVIEWER'S REPORT

Manuscript No.: IJAR-52935

Date: July 22, 2025

Title: Diversity of insect's pollinators of Cowpea, *Vigna unguiculata* L. Walp small white variety seed (Fabaceae) and assessment of its impact on yields at Malang (Cameroon),

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		X		
Techn. Quality			X	
Clarity			X	
Significance			X	

Reviewer Name: Dr Lakhdar Guerine

Date: July 22, 2025

Detailed Reviewer's Report

This study conducted in Malang (Cameroon) investigates the diversity of pollinating insects of cowpea (*Vigna unguiculata*, small white seed variety) and their impact on crop yield. Three treatments were applied to 360 flowers: open pollination, insect-excluded flowers, and flowers temporarily exposed to insect foraging. Results showed that insect pollination significantly increased fruiting rate (92.5% vs. 62.5%), seed number per pod (7.51 vs. 4.46), and percentage of normal seeds (88.58% vs. 63.80%). *Apis mellifera* was the most frequent visitor. A strong correlation was observed between the number of blooming flowers and insect visits. The findings emphasize the importance of insect conservation to enhance cowpea yield and seed quality. Pesticide use could compromise this beneficial interaction.

Strengths

- 1) The study is based on a solid experimental design using comparative treatments, statistical analyses (t-test, ANOVA, chi-square), and relevant literature.
- 2) It provides clear quantitative evidence of the positive impact of flower-visiting insects on cowpea yield and seed quality, addressing a crucial food security issue in sub-Saharan Africa.

Weaknesses

- a) The English language in the manuscript contains many grammatical and stylistic errors, making the reading difficult and weakening the scientific message.

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- b) The title and overall structure (especially the discussion) could be improved for clarity, conciseness, and scientific coherence.

Recommendation: Major revision

A thorough language revision (academic English) and partial restructuring of the text, particularly in the discussion section, are required. The scientific basis is solid, the results are relevant, and the agricultural implications are presented.