

REVIEWER'S REPORT

Manuscript No.: IJAR- 57036

Title: **EFFECTIVENESS OF CERTAIN ESSENTIAL OILS ON SPODOPTERA LITTORALIS (Boisd.).**

Recommendation:

Accept as it is

Accept after minor revision

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer Name: **ANAPANA GOPAL**

Reviewer's Comment for Publication.

General Comments

The manuscript investigates the insecticidal and antifeedant effects of eucalyptus and clove essential oils against *Spodoptera littoralis*, an economically important agricultural pest. The topic is relevant in the context of eco-friendly pest management and botanical insecticides.

The study presents experimental data and demonstrates a concentration-dependent response, which is scientifically valuable. However, the manuscript requires minor improvements in clarity, formatting, language, and scientific rigor before it can be considered for publication.

Content and Originality

- The study addresses an important applied research problem in pest management.
- The use of essential oils as biopesticides is well-established; thus, originality is moderate rather than high.
- The manuscript provides experimental results (mortality, LC_{50} , antifeedant activity), which adds value.
- However:
 - There is limited novelty in terms of new compounds, mechanisms, or comparative innovation.
 - The discussion is largely literature-supported but not critically analytical.
 - No clear research gap or hypothesis is explicitly stated.

Suggestion:

- Clearly state objectives and novelty.
- Include mechanistic insights (mode of action of EOs).
- Compare findings with recent studies (2020–2025) more critically.

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Technical Quality

- Strengths:
 - Use of bioassays (toxicity and antifeedant tests) is appropriate.
 - Application of Probit analysis and ANOVA is suitable.
- Weaknesses:
 - Experimental design lacks detail:
 - No clear mention of control validation, replication justification, or error handling.
 - Sample size (10 larvae/replicate) may be considered limited.
 - Statistical reporting is incomplete:
 - Missing F-values, p-values, confidence intervals clarity.
 - Tables are poorly formatted and difficult to interpret.
 - Figures lack proper labeling, captions, and statistical indicators.

Suggestion:

- Improve statistical reporting (include full outputs).
- Reformat tables with clear headings and units.
- Provide proper figure legends and significance markers.

Language and Presentation

- The manuscript has significant language issues:
 - Grammatical errors
 - Incorrect sentence construction
 - Typographical mistakes (e.g., spacing, symbols, superscripts)
- Examples:
 - "EOs proved to have efficient against..." → incorrect phrasing
 - "same oils caused 83.83 & 73.33% mortality" → needs clarity
- Scientific names are inconsistently formatted (italics missing in places).

Suggestion:

- Perform professional English editing.
- Ensure:
 - Correct scientific writing style
 - Proper tense usage
 - Consistent formatting of species names (italicized)

Structure and Organization

- Basic structure is present:
 - Abstract → Introduction → Materials & Methods → Results → Conclusion
- However, there are minor issues:
 - Results and Discussion are merged but not well integrated
 - Tables and figures are inserted improperly
 - Section numbering is inconsistent
 - Some sections (e.g., chemicals, experiments) are poorly organized
 - Repetition and redundancy exist

Suggestion:

- Separate Results and Discussion clearly (if journal requires)
- Maintain consistent section formatting
- Place tables/figures properly with references in text
- Improve logical flow between paragraphs

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References and Citations

- Strengths:
 - Good number of references
 - Inclusion of recent studies (2024) is positive
- Weaknesses:
 - Citation style is inconsistent
 - Some references contain:
 - Formatting errors
 - DOI inconsistencies
 - In-text citations are not always properly aligned

Suggestion:

- Follow a uniform citation style (APA/Harvard as per journal)
- Verify all DOIs and formatting
- Ensure consistency between in-text citations and reference list

Overall Recommendation

The manuscript has scientific merit and useful experimental data, but it suffers from minor issues in language, formatting, and presentation, along with moderate limitations in originality and analytical depth.

Substantial revision is required to meet publication standards.

Final Decision:

Acceptable with **Minor revision**.