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Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_125886
Title of the Manuscript:	Persistence and Dissipation Kinetics of λ-cyhalothrin in Okra Fruits and Soil
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript is important for the scientific community as it addresses a critical issue of pesticide residue persistence in food crops, specifically focusing on λ -cyhalothrin in okra. By providing detailed insights into the dissipation kinetics of this widely used insecticide, the study helps ensure food safety and offers data relevant for regulatory decisions on pesticide application. I appreciate the manuscript for its thorough methodology, use of validated analytical techniques, and clear presentation of results that could inform better agricultural practices and consumer safety. However, the inclusion of more detailed statistical analysis and graphical representation of data could further enhance its clarity and impact.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Persistence and Dissipation Kinetics of λ -cyhalothrin in Okra Fruits and Soil," is informative and accurately reflects the study's focus. However, it could be made more concise and engaging by emphasizing the key outcomes or relevance to food safety. A suggested alternative title could be: "Dissipation Kinetics and Safety of λ-cyhalothrin Residues in Okra Fruits and Soil" This version highlights the safety aspect, which is important to the study's implications, while retaining the focus on dissipation kinetics.	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The abstract of the article is quite comprehensive and provides a clear overview of the study's objectives, methods, key findings, and conclusions. However, there are a few areas where improvements could be made to enhance clarity and focus:</p> <p>Suggestions for Improvement:</p> <ol style="list-style-type: none"> Simplification of Results: <ul style="list-style-type: none"> The residue values in the abstract could be simplified for better readability. Instead of providing specific residue values for each dose and year in detail, you could generalize the findings (e.g., "Initial residues were higher at the double dose and dissipated below the quantification limit within 7 to 10 days"). The mention of "first-order kinetics" can be retained, but perhaps the half-life data could be streamlined by providing a general range instead of exact values for each year. Clarification on Safety Implications: <ul style="list-style-type: none"> The abstract could benefit from a clearer statement on the safety implications of the findings, emphasizing that λ-cyhalothrin residues in okra fruits were below regulatory limits (EU-MRL) and that the pesticide can be safely used when applied as recommended. Reduction of Methodological Details: <ul style="list-style-type: none"> While the methodology is important, some of the more technical details (e.g., "Gas Chromatography-Mass Spectrometry (GC-MS/MS)" and exact sampling times) could be reduced in the abstract to keep it concise. These details are better suited for the methods section, and the abstract should focus more on the broader approach. <p>Suggested Revised Abstract:</p> <p>"Understanding pesticide residue levels is crucial for ensuring food safety. This study examined the persistence and dissipation kinetics of λ-cyhalothrin in okra fruits and soil over two years. λ-cyhalothrin was applied at recommended and double doses, and residues were analyzed using GC-MS/MS. Initial residues in okra fruits decreased below the quantification limit (0.01 mg kg^{-1}) within 7 to 10 days, following first-order kinetics with a half-life of 2.17 to 2.43 days. In soil, residues dissipated within 3 to 5 days. Residue levels were below the EU-MRL, indicating that λ-cyhalothrin can be safely used in okra cultivation. This study provides essential data for ensuring safe pesticide use and consumer protection."</p> <p>This version provides the same information but is more concise and emphasizes the safety implications.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Suggested Improvements:</p> <ol style="list-style-type: none"> Subsection Titles in the Methods: <ul style="list-style-type: none"> The titles of subsections under "Materials and Methods" are appropriate but could be made more descriptive for better clarity. For example: <ul style="list-style-type: none"> Change "Field Experiment" to "Field Experiment Design and Conditions" to better convey the experimental setup and conditions. Change "Residue Estimation" to "Analytical Techniques for Residue Estimation" to clarify that this subsection covers the method for detecting residues. Statistical Analysis: <ul style="list-style-type: none"> It would be helpful to add a dedicated subsection in Materials and Methods or Results specifically for "Statistical Analysis." Even if simple, this will highlight how the data was analyzed, especially if any tests of significance were applied (e.g., ANOVA, regression analysis). Discussion Section: 	

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	<ul style="list-style-type: none"> ○ If possible, consider separating the Discussion from the Results section. This would allow the discussion to be more analytical and less descriptive. You can use this section to compare results with previous studies, explore the significance of your findings, and suggest implications for future research. <p>4. Method Validation:</p> <ul style="list-style-type: none"> ○ A "Method Validation" subsection is already included under "Materials and Methods," but this could be moved to either the very end of this section or into an appendix if the details are extensive. It's important to highlight validation, but this information can sometimes break the flow if too detailed in the middle of methodology. <p>Overall Recommendation:</p> <p>The structure is largely effective and appropriate for a research article of this nature. Minor changes, such as separating the results and discussion and ensuring all subsections are clearly titled, could improve readability and the logical flow of the manuscript.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript appears scientifically robust and technically sound due to its comprehensive approach in studying the dissipation kinetics of λ-cyhalothrin residues in okra fruits and soil. The authors have employed a well-designed field experiment over two consecutive years, ensuring that the findings are reliable and account for seasonal variability. The use of Gas Chromatography-Mass Spectrometry (GC-MS/MS) for residue analysis is a standard and accurate method, with proper validation of recovery rates and detection limits, adding credibility to the results. Additionally, the dissipation patterns follow first-order kinetics, which is consistent with the behavior of many pesticides, further supporting the scientific correctness of the conclusions drawn.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>:-</p>	<p>The references in the manuscript are comprehensive and relevant, but a number of them are relatively outdated, with some citations going back as far as the 1960s and early 2000s. While historical context is valuable, including more recent studies, particularly those from the past five years, would strengthen the manuscript's relevance to contemporary research trends. Some of the references related to pesticide dissipation, food safety, and environmental impacts could be updated with newer findings. At sampling you can also cite the papers that mentions about the sampling procedure rather than discussing it in detail. This paper has everything explained. You can look into it and cite where ever possible.</p> <p>chrome-extension://efaidnbnmnnibpcajpcglclefindmkaj/https://www.researchgate.net/profile/Tejaswi-Boyapati/publication/349237411_REVIEW_ON_METHODS_FOR_ANALYSIS_ESTIMATION_OF_PESTICIDE_RESIDUE_IN_FOOD/links/60261dc292851c4ed5669865/REVIEW-ON-METHODS-FOR-ANALYSIS-ESTIMATION-OF-PESTICIDE-RESIDUE-IN-FOOD.pdf</p> <p>REVIEW ON METHODS FOR ANALYSIS /ESTIMATION OF PESTICIDE RESIDUE IN FOOD TEJASWI BOYAPATI* Vignan's Foundation for Science, Technology & Research, Vadlamudi-522 213, Andhra Pradesh.</p>	

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<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<ol style="list-style-type: none"> Sentence Structure: Some sentences are quite long and could be simplified or split into shorter ones for better readability. For example, in the introduction and methods sections, complex sentences can be broken down for more straightforward communication. Grammar and Punctuation: There are minor grammatical issues such as missing articles (e.g., "the" or "a") and punctuation errors. For example, in phrases like "dissipation pattern agricultural produce as well soil," it should be "dissipation pattern in agricultural produce as well as soil." Technical Terms: While most technical terms are appropriately used, consider simplifying or defining highly specialized terms for broader audiences. For example, the description of chemical names and processes could be explained a bit more clearly for readers who are not specialists in the field. Consistency: Ensure consistency in terminology (e.g., pesticide doses, abbreviations) throughout the manuscript. In some cases, slight variations in how terms are presented could be confusing for readers. <p>Overall, with minor editing for grammar, punctuation, and sentence structure, the language will be well-suited for scholarly communication.</p>	
<p>Optional/General comments</p>		

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i></p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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