

Review Form 1.7

Journal Name:	Asian Journal of Fisheries and Aquatic Research
Manuscript Number:	Ms_AJFAR_103792
Title of the Manuscript:	In-Vitro Antibacterial potentials of Essential oil from Citrus limon against selected pathogenic bacteria isolated from cultured Nile Tilapia (<i>Oreochromis niloticus</i>)
Type of the Article	Short Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalajfar.com/index.php/AJFAR/editorial-policy>)

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PART 1: Review Comments

	Reviewer's comment	Author's comment (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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p>	<ul style="list-style-type: none"> ✚ The study has indicated that based on the UN Food and Agriculture Organization, at least 9.2 million people in Nigeria confronted a catastrophe of food insecurity between March and May of 2021 amidst armed conflicts, COVID-19's effects, and climate change. ✚ Fish contributes to food security and poverty curtailment as it represents the predominant animal protein food source for the human population. ✚ The Nile tilapia is a vital commercially cultured fish species in Nigeria due to the tremendous demand for fish and tolerance to extensive and intensive culture conditions as well as high yield potential ✚ Yes, the title of the manuscript is appropriate enough. ✚ Yes, the abstract written is comprehensive. ✚ Yes, they are appropriate enough addressing various significant aspects. The presentation of the Abstract, Introduction, Materials and Methods, Results and Discussion and Conclusion are exceedingly appreciable. ✚ In addition, the observations were subjected to statistical analysis that has been concisely documented in Tabular forms in a persuasive method. ✚ The figure showing the Major classification of lemon essential oil components identified is exemplary. ✚ The study has demonstrated that the emerging bacterial pathogens viz., <i>Streptococcus</i> species, is known to cause Streptococcosis in freshwater aquaculture; <i>Aeromonas hydrophila</i>, a Gram-negative bacterium, wreak diseases in catfish and tilapia; <i>Escherichia coli</i>, a bacterium that generally lives in the intestine of farmed fishes with its pathogenic strains causing diarrhea by producing and releasing toxins that are enterotoxigenic. Furthermore, <i>Staphylococcus aureus</i> is a devious bacterium that affects cultured fish and may lead to substantial mortalities in developing countries. ✚ The prior reports illustrated that Lemon EO possess useful biological effects such as antimicrobial, antioxidant, radical scavenging, anti-cholinesterase, anthelmintic, and anticancer properties on aquatic animals. ✚ From the research the Minimum Inhibitory Concentrations (MIC) and Minimum Bactericidal Concentration (MBC) values revealed that 50% lemon EO inhibited bacterial growth for <i>S. agalactiae</i> whereas it was greater than 50% for <i>S. aureus</i>, <i>E. coli</i> and <i>A. hydrophila</i>. 	

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<p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ul style="list-style-type: none"> ✚ Thus, it has been reported that Lemon EO has potential antibacterial properties against tested pathogens that affect cultured fish and could be appraised as an exemplary inrant for further research to develop novel antibacterial additive in aquaculture. ✚ The references cited are adequate and recent enough. 	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<ul style="list-style-type: none"> • Abstract, 11th line: and Minimum Bactericidal Concentration (MBC) were-remove the preposition"for". • Abstract,13th line: showed the highest-add an article. • Conclusion, last 2nd line: antibacterial drugs- fix the agreement mistake. ✚ The usage of the English language is appropriate and well suitable for scholarly communications. 	
<p>Optional/General comments</p>	<ul style="list-style-type: none"> • In the study, the zone of inhibition, MIC and MBC were evaluated using one-way ANOVA according to treatments and the Turkey Multiple Range Test ($P = .05$) was used to compare the potentials of the lemon EO against each bacteria. • All statistical analysis was conducted with GraphPad Prism version 8. • Overall, the manuscript has been tersely authored, remarkable, and well-presented with related statistical data that has been documented in the form of fine Tabular forms. 	

PART 2:

	Reviewer's comment	Author's comment (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)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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