

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_120906
Title of the Manuscript:	Performance of Apis mellifera L. colonies developed from artificially and naturally inseminated queens
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>
<p>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.</p>	<p>The manuscript titled "Performance of Apis mellifera L. colonies developed from artificially and naturally inseminated queens" holds significant importance for the scientific community, particularly in the fields of entomology, apiculture, genetics, and agricultural sciences. Here are several key reasons why this research is valuable:</p> <ol style="list-style-type: none"> 1. Understanding Genetic Diversity: <ul style="list-style-type: none"> ○ By comparing the performance of colonies developed from artificially inseminated queens to those from naturally inseminated queens, the study can provide insights into the genetic diversity within bee populations. Genetic diversity is crucial for the health, resilience, and productivity of bee colonies. 2. Implications for Bee Breeding Programs: <ul style="list-style-type: none"> ○ Artificial insemination (AI) allows for controlled breeding, which can be used to enhance desirable traits such as disease resistance, productivity, and temperament. The findings of this research can inform and improve bee breeding programs, leading to more robust and productive colonies. 3. Colony Health and Productivity: <ul style="list-style-type: none"> ○ The performance metrics of bee colonies, such as honey production, brood rearing, and overall colony health, can be directly influenced by the genetic makeup of the queen. This study helps in understanding how different insemination methods impact these critical performance indicators. 4. Conservation Efforts: <ul style="list-style-type: none"> ○ With global bee populations facing threats from pesticides, habitat loss, and diseases, understanding the best practices for maintaining healthy bee populations is vital. This research can contribute to conservation strategies by identifying optimal breeding practices. 5. Economic Impact: <ul style="list-style-type: none"> ○ Honeybees are essential pollinators for many crops, and their health directly affects agricultural productivity and the economy. Insights from this study can lead to more effective management practices, benefiting both beekeepers and the agricultural sector. 6. Scientific Advancements in Reproductive Technologies: <ul style="list-style-type: none"> ○ The study can advance the scientific understanding of reproductive technologies in bees. It may highlight the pros and cons of AI versus natural insemination, providing a basis for future innovations in bee reproduction techniques. 7. Impacts on Bee Behavior and Social Structure: <ul style="list-style-type: none"> ○ The method of insemination might influence the behavior and social dynamics within a colony. Research in this area can shed light on how different reproductive methods affect colony cohesion, queen-worker interactions, and overall colony stability. <p>Overall, the manuscript contributes valuable knowledge that can help optimize beekeeping practices, enhance the sustainability and productivity of bee populations, and support broader ecological and agricultural goals.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<ol style="list-style-type: none"> 1. Yes, 2. The title is suitable but the main authors and corresponding authors should be listed below the title following the publisher format. 	

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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>	<ol style="list-style-type: none"> 1. The main contents described numerically and percentiles in your results and discussion are not mentioned in the main body of the abstract. 2. Through incorporating the numerical data's in brackets, your abstract could be easy to understand, sound and innovative as highlighted below. 3. Include problem of statement and significance of the study after completion <p>Comparative performance between artificially inseminated (AI) and naturally inseminated (NI) colonies of <i>A. mellifera</i> L. in the year 2016-17 and 2017-18 revealed that in both the years, brood area (.....), pollen area (.....) and nectar area (.....) have significant difference between AI and NI colonies in all the months. In 2016-17, the pollination efficiency (.....) has significant difference between AI and NI colonies in all the months except for May, December, January and February. Whereas, in 2017-18, pollination efficiency (.....) has significant difference in all the months except for October and March. Honey yield (.....) showed significant difference in April, May, June, December, January and February during 2016-17 and in 2017-18, honey yield (.....) revealed significant difference between AI and NI colonies in May, June, December, January and February.</p> <p>Keywords: <i>Apis mellifera</i> L., artificially inseminated queens, Colonies, Honey yield, naturally inseminated queens and comparative performance</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<ol style="list-style-type: none"> 1. No. 2. The introduction is totally shallow and it needs complete revision 3. Introduction includes History of breeding honey bee colony, current status and significance of AI and NI towards strong queen and populous colony, honey yield, wax, pollen, problem of statement (why you need to conduct the study) and significance of the output. 4. Needs minimum 1 page and maximum 1 and half 5. In the methodology, the subsections are not properly organized such as 3.1 Study area 3.2 Selection of viable colonies of <i>Apis mellifera</i>:..... 6. Results and discussion, 7. the tables are in the Apendices section but they should be below/above the discussion section and the results should be supported by recent references while comparing your result with the previous findings. 8. Conclusion...conclusion should be concise and directly reflect output of the objectives and few sentences (one paragraph) 9. Recommendation if any 10. Acknowledgement 11. References 	
<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>	<ol style="list-style-type: none"> 1. Scientifically the manuscript should be inclusive of Title, Abstract, Introduction, Problem of statement, Objectives, Materials and methods, sub headings of the methodology section including working procedures supported by current references, 2. Results and discussion that include tables, graphs and their complete discussion. it should be supported with the experimental data analysis output. 3. Conclusion and Recommendation, Acknowledgement and finally plagiarism free manuscript. 4. If you follow these steps and produce your scientific manuscript, it could be innovative and sound. 	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<ol style="list-style-type: none"> 1. The references are not sufficient and not recent/up-to-date information. your references are from 1958-2013 and your finding is supported by old findings and this can lead to rejection or no acceptance by the publisher and no citation by the scientific community 	

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:	<p>of today.</p> <ol style="list-style-type: none"> 2. References should be endnote. Wiley...APA citation styles supported 3. Intensive revision is required 4. you can get access of recent references for your manuscript via Sci-Hub.com , ChatGPT, AI search, pdf drive, Google scholar, Research gate and academia..... 	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	Language is ok with slight grammar check-up	
<p><u>Optional/General</u> comments</p>		

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)
<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>	

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