Review Form 1.7

Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**Ms_IJPSS_101626**
Title of the Manuscript:	**Efficacy of Bio -Pesticides and chemicals against gram Pod Borer [Helicoverpa armigera (Hubner)] on Greengram (Vigna radiata (L.) Wilczek)**
Type of the Article	**Original 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:

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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)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?**	• The research focuses on the *Vigna radiata* (green gram) an annual vine with yellow flowers and fuzzy brown pods that comprises of three subgroups, including one cultivated (*Vigna radiata* subsp. *radiata*) and two wild ones (*Vigna radiata* subsp. *sublobata* and *Vigna radiata* subsp. *glabra*). • Mung beans are highly nutritious containing around 55%- 65% carbohydrates, besides comprehending proteins, fats, vitamins, and minerals. It is composed of about 20% to 50% protein of total dry weight, among which globulin (60%) and albumin (25%) are the primary storage proteins. • Mung bean is appraised to be a substantial source of dietary proteins. • Additionally, both seeds and sprouts of mung bean yield lower calories compared to other cereals, thus compelling it to be more attractive to obese and diabetic individuals.(source: USDA NationalNutrient data base,2021). • Yes, the title of the manuscript is appropriate enough. • Yes, the abstract written is comprehensive • Yes, they are appropriate enough illustrating the general sub-sections *viz.*, Abstract, Introduction, Materials and Methods, Results and Discussion and Conclusion as well. • The data have been concisely documented in tabular forms. The graphical presentations are lucid. • It is elucidated that India ranks first in green gram production (70% of the total world production). • Gram pod borer, *Helicoverpa armigera*(Hubner) (Lepidoptera: Noctuidae), a global and polyphagous pest armed with multivoltine, diapauses is magnified due to its attack on reproductive stages, primarily on fruiting bodies, highly mobile and nocturnal in nature spread swiftly in varied areas, found to cause economic damage to several cultivated crops *viz.*, chickpea, pigeon pea, tomato, chilli, okra, etc throughout the year in India and sub-continent. • The data on the mean of larval population of first spray and second spray, overall mean revealed that all the treatments except untreated control are effective and at par. • Amongst the treatments studied, the premier and most economical treatment was Chlorantraniliprole 18.5SC gave the cost-benefit ratio of (1:4.13) and marketing yield of	

6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	(16.9 q/ha) followed by Spinosad 45SC (1:3.99 and 16.3q/ha), Indoxacarb 14.5 SC (1:3.94 and 15.7 q/ha), Neem oil 2% (1:3.52 and 13.7 q/ha), Emamectin bengate (1:3.59 and 13.4 q/ha), *Bacillus thuringiensis* 4% WSP (1:3.39 and 12.5 q/ha), *Beauveria bassiana* 1.15% WP (1:3.18 and 12.2 q/ha), as compared to control plot (1:1.19 and 4 q/ha). • Thus, the findings of the study could aid in integrated pest management in order to circumvent the indiscriminate use of pesticides for eco-friendly management and tobalance flora and fauna from the ecosystem which causes pollution in the environment besides being less injurious to beneficial insects and human beings. • The references cited are adequate and recent enough.	

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Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	• Abstract, 1st line: in the *rabi* season; 6th line: on the larval; 7th line: superior over the control- Correct the usage of articles. • Introduction, 2nd line: green gram- add a space. • Pg. no.3, 2nd paragraph,2nd line: carbohydrates- fix the agreement mistake. • Pg. no.3, 2nd paragraph, 5th line: proteolytic cleavage- Correct the spelling. • Pg. no.3, 2nd paragraph, 5th line: proteins is even- Correct subject-verb. • Pg. no.3, 2nd paragraph, 6th line: in humans- Fix the agreement mistake. • Pg. no.3, 2nd paragraph, 8th line: attractive to- add a space. • Pg.no.4, 1st line: pest of chickpea. Grampod borer- add a full stop after the completion of a sentence. • Conclusion, last 3rd line: from the ecosystem-add an article. • Conclusion, last 2nd line: it was less harmful- remove the verb "be". • Conclusion, last 2nd line: more trials- Correct the spelling. • Conclusion, last line: in the future- add an article. • Yes, the usage of the English language is comprehensive, appropriate and quite well-suitable for scholarly communications.	
Optional/General comments	• The observations are recorded and tabulated as "Efficacy of bio pesticides and chemicals on the larval population of pod borer *H.armigera* on green gram (Meanof first and second Spray) and Yeild and B:C Ratio. • The vivid graphical representations for Efficacy of bio pesticides and chemicals on the larval population of podborer *H. armigera* on green gram First Spray and Second spray have been depicted. • Overall, the manuscript has been laconically authored, remarkable, and well-presented with related statistical data that has been documented in the form of fine Tabular forms along with fine graphical representations.	

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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