



VINAYAKA MISSIONS SIKKIM UNIVERSITY

(A state private University under Act 11 of 2008 of Govt of Sikkim)

NH31-A, TADONG, EAST SIKKIM-737102

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Half-Yearly Progress Report of Ph.D. Research Scholar

1. Name (in Capital Letters) : ANUJ KUMAR TIWARI
2. Degrees for which, he/she has registered : PHD BOTANY
3. Registration No. with date of registration : PHD/2018-19/0013
4. Name of the Supervisor : DR ASHOK KUMAR
5. Title of the research project : **STUDIES ON THE SEASONAL INCIDENCE OF MAJOR INSECT PESTS OF BRINJAL CROP AND THEIR ECOFRIENDLY MANAGEMENT**
6. Period of Progress Report : APR2019-SEP2019
7. Books/journals consulted :
If more space required, please attach a separate sheet
8. Experimental work done :
9. Field work done, if any :
If more space required, please attach a separate sheet
10. Percentage of research work completed : 20%
(As per your assessment)
11. Whether writing of thesis started? : YES

12. Whether presented any Seminar on your Research :
Work?
13. Courses, as required passed :
14. Any other matter you may like to report :

Date of submission:

Anuj Kumar Tmari
Signature of the Research Scholar

For Supervisor/s

Forwarded with comments

The proposed aspects of the investigation are critically discussed in this chapter, including the seasonal occurrence of the major insect pests and their natural enemies, the effectiveness of IPM modules in controlling the major pest of brinjal, the toxicity of insecticides to natural enemies, and the cost-benefit ratio (CBR) of modules.

Overall evaluation of the current experiments revealed that, compared to the control, all modules were successful in reducing the population of beetles.

Achok Kumar
Signature of the Supervisor

Signature of the HoD

Signature of the Chairman, DC



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5. Title of the research project : STUDIES ON THE SEASONAL INCIDENCE OF
MAJOR INSECT PESTS OF BRINJAL CROP AND THEIR ECOFRIENDLY
MANAGEMENT
6. Period of Progress Report : OCT2019-APR2020
7. Books/journals consulted :
If more space required, please attach a separate sheet
8. Experimental work done :
9. Field work done, if any :
If more space required, please attach a separate sheet
10. Percentage of research work completed : 40%
(As per your assessment)
11. Whether writing of thesis started? : YES

12. Whether presented any Seminar on your Research :
Work?
13. Courses, as required passed :
14. Any other matter you may like to report :

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Anuj Kumar Timari

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For Supervisor/s

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The current findings are consistent with observations made by Gureshi et al. (1998) and Puranik et al. (2002), who found that spraying Dipel 8L @ 0.2 per cent at 10-day intervals resulted in the least amount of *L. orbonalis* infestation on shoots (9.56%) against shoot and fruit borer. The results of Bustamante et al. (1994) and Raja et al. (1998), who found that field release of egg parasitoid, *T. chilonis* at fortnightly intervals had significantly reduced the infestation than untreated control, support the use of egg parasitoid, *T. chilonis*, which was effective against shoot and fruit borer at 30 and 60 days after transplanting but less effective at 15 and 45 days after transplanting

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3. Registration No. with date of registration : **PHD/2018-19/0013**
4. Name of the Supervisor : **Dr. Ashok Kumar**
5. Title of the research project : **STUDIES ON THE SEASONAL INCIDENCE OF MAJOR INSECT PESTS OF BRINJAL CROP AND THEIR ECOFRIENDLY MANAGEMENT**
6. Period of Progress Report : **JUNE-2020 TO NOV-2020**
7. Books/journals consulted :
If more space required, please attach a separate sheet
8. Experimental work done :
9. Field work done, if any :
If more space required, please attach a separate sheet
10. Percentage of research work completed : **80%**
(As per your assessment)
11. Whether writing of thesis started? : **YES**
14. Whether presented any Seminar on your Research Work? :
15. Courses, as required passed :
16. Any other matter you may like to report :

Date of submission:

Ajay Kumar Tiwari

Signature of the Research Scholar

For Supervisor/s

Forwarded with comments

In the current study, systematic investigations have been made on a variety of theoretical and practical aspects, including the seasonal occurrence of the main insect pests and their natural enemies, the impact of insecticides on pests, parasitoids, and predators, and the evolution and development of efficient and affordable modules against the main pests of brinjal.

Ajay Kumar

Signature of the Supervisor

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Signature of the Chairman, DC



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6. Period of Progress Report : **NOV-2020 TO APR-2021**
7. Books/journals consulted :
If more space required, please attach a separate sheet
8. Experimental work done :
9. Field work done, if any :
If more space required, please attach a separate sheet
10. Percentage of research work completed : **100%**
(As per your assessment)
11. Whether writing of thesis started? : **YES**
12. Whether presented any Seminar on your Research :
Work?
13. Courses, as required passed :
14. Any other matter you may like to report :

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According to findings made regarding the natural enemies of three significant pests, jassid, hadda beetle, and shoot and fruit borer, prominent jassid predators include Chrysoperla carnea and Mantis religiosa, while important hadda beetle parasitoids include Tetrastichus sp. and Pediobius faveolatus. Fruit and shoot borer were found to contain Trathala sp.

According to research on the effectiveness of insecticides against the hadda beetle, the endosulfan-Trichogramma module of nimbecidine had the lowest beetle population, followed by nimbecidine-endosulfan and endosulfan-Trichogramma.

Achuk Kumar

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