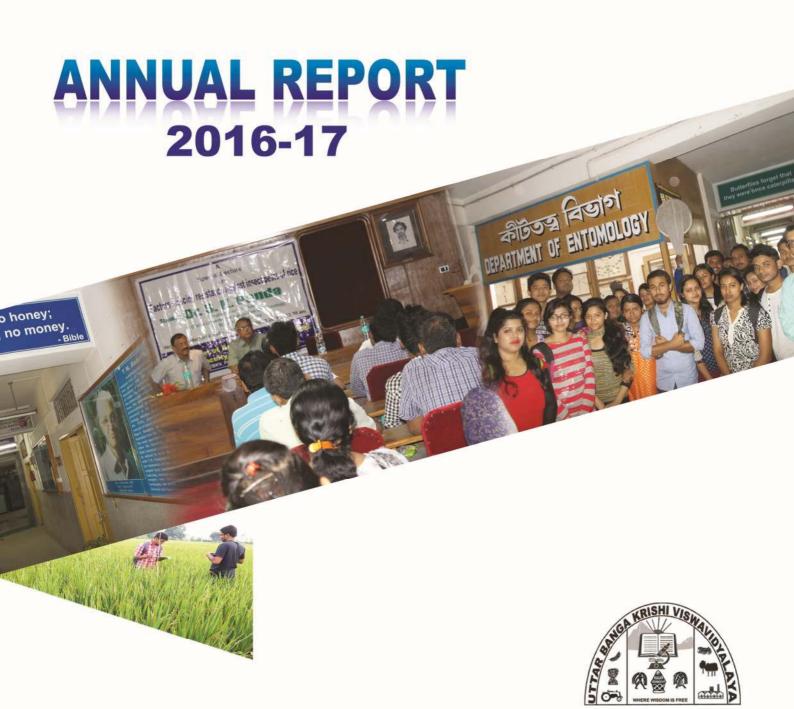
# **Department of Entomology**



# Uttar Banga Krishi Viswavidyalaya

Pundibari, Cooch Behar West Bengal-736165 Website: www.ubkv.ac.in

## UTTAR BANGA KRISHI VISWAVIDYALAYA

## FACULTY OF AGRICULTURE

P.O. Pundibari, Cooch Behar, West Bengal - 736165

From: Prof. T.K. Hath Dean



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#### **MESSAGE**

It gives me pleasure to know that the Department of Agril. Entomology has decided to publish its Annual Report for the year 2016-17. The department has been catering different UG (Agriculture & Horticulture) and PG (M.Sc. and Ph.D.) courses successfully. It is a matter of appreciation that due to sincere and dedicated service of the teachers, the performance of the students in different competitive examinations of National level are praiseworthy. A few successful UG pass-outs are pursuing higher studies in various reputed academic Institutes all over the country. A few PG students obtained have Rajib Gandhi National Fellowship and SRF. Former students of the department are performing their professional responsibilities in various government (State and National level) and corporate sectors very successfully.

The department deserves special acknowledgement much appreciation for preparing two practical manuals. It is indeed a matter of appreciation that the department has developed Crop Museum which is being maintained all round the year and established an Apiary unit with an objective to improve the students' field experience and practicals as well as organizing farmers training. The department has successfully organized world Honey bee day for consecutive two years (2016 and 2017).

The faculties are successfully handling a number of research projects and engaged in different extension programmes all round the year. The department has also nominated teachers for various training programmes, Seminar/Symposium, etc. to upgrade their knowledge base for making teaching and research programme more effective and attractive.

Annual report is a documentation of various activities and a testimony of gradual development of the department. I wish every success of its publication and I convey my sincere thanks to all the teaching and non-teaching staff for actively participating in the course of development of the department and bringing out this annual report possible.

18<sup>th</sup> July, 2017 Pundibari

(T. K. Hath)



## From the desk of the Head of the Department

Annual Report 2016-17 of the Department of Agricultural Entomology has been prepared. Round the year the Department is engaged in different academic, research and extension activities. Learned faculties of the Department perform their responsibilities tirelessly for the interest of the Department and the University as a whole. Students are exposed to field level practical classes regularly in both UG and PG levels in addition to theoretical and laboratory studies. They are showing excellence in different academic and research activities and are performing well in various competitive examinations like JRF, NET, SRF etc. During 2015-16 three of our Ph. D. students were selected for Rajiv Gandhi National Scholarship, one student have qualified SRF and two have qualified NET examination. These success stories are the results of hard work, devotion and proper guidance from the teachers. We are very much proud of that. Works under Voluntary Centre on AICRP on Biological Control going on smoothly by the faculties of the Department. Farmers advisory are regularly given by the experts to the farmers who came to the Department.

Annual Report is a mode of documentation of different activities of the Department. All the learned faculties and students have came forward and have cordially help in preaparing the report by providing necessary information during preparation of the report. Non-teaching staffs have also extend their cooperation.

I am very much thankfull to all of them for such nice cooperation and I think this information enriched report will help us in chalking out future course of activities of the Department.

Dr. Nripendra Laskar

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Photo gallery of Departmental activities

#### 1. Background

As a constituent under the erstwhile North Bengal Campus (Satellite Campus of Bidhan Chandra Krishi Viswavidyalaya (B. C. K. V.), the Department of Agricultural Entomology started its journey since 1979 at Gram Sevak Training Centre (G. S. T. C.), Cooch Behar, West Bengal. Under the Satellite Campus of Bidhan Chandra Krishi Viswavidalaya only under graduate (UG) courses were catered from this constituent unit of the Department of Agricultural Entomology of Bidhan Chandra Krishi Viswavidalaya, Mohanpur, Nadia, West Bengal till 1998. The aforesaid constituent unit of North Bengal Campus (B. C. K. V.) used to offer elective subject in Agricultural Entomology at undergraduate (UG) course of B. Sc. (Ag.) Hons. in addition to catering the compulsory courses on Agricultural Entomology under B. Sc. (Ag.) Hons. course. From 1999, the Department introduced M.Sc. (Ag.) programme in Agricultural Entomology with an intake capacity of five (05) students per year.

The full fledged Department of Agricultural Entomology started functioning with the establishment of Uttar Banga Krishi Viswavidyalaya in February, 2001. Since the establishment of the University in 2001, both under graduate and post graduate courses (M. Sc. and Ph. D.) have been introduced.

#### 2. Functions

- i. To impart teaching in Entomology for UG [B. Sc. (Ag. and Hort.)] and PG (M.Sc. and Ph. D.) degree programmes.
- ii. To organize seminar/Workshop on various issues related to pest problems of different crops as well as different beneficial aspects of insects.
- iii. To undertake research programmes related to the location specific, strategic and academic ones at Ph. D. level.
- iv. To organize training programmes for the farmers on management of pest problems in different crops.
- v. To render advisory services through the extension machinery of the university.

#### 3. Infrastructure in the Department

i. The Department maintains fairly developed laboratories for UG and PG studies.

- ii. The Department has established a small apiary, well maintained mulberry field and rearing room of mulberry silk worm for imparting hands on training programme on beekeeping and sericulture respectively for the final year students at UG level.
- iii. Utilisation of Sick plot for imparting field practical of students.
- iv. An Insect Museum has been developed and is being maintained well which is also useful for both UG and PG students, visitors in addition to beautification of the Department.
- v. Microscopy and image analysing facility with the help of software is available in the Department.

## 4. Teaching

The Department offers undergraduate courses at different semesters both for B. Sc. (Ag.) Hons. and B. Sc. (Hort.) Hons. programme. At 7th semester in B. Sc. (Ag.) Hons. course, the Department has been offering various courses under Crop Protection Module since the introduction of new syllabuses as per recommendation of IVth Dean's Committee. Prior to this, the Department used to offer elective courses at 4<sup>th</sup> year of studies at UG level. At postgraduate (PG) level of studies, M. Sc. (Ag.) and Ph. D. (Agril. Entomology) courses are offered. The Department follows course and credit system of studies.

From 2016-17 academic session the courses are being offered by the Department as per recommendation of Vth Deans Committee. Courses under IVth Deans Committee recommendations are also being offered for the students of earlier batches.

#### **5.** Faculties and staffs

- i. Head of the Department:
  - a. Prof. T. K. Hath(01.04.2016 to 27.05.2016)
  - b. Dr. Nripendra Laskar(27.05.2016 to 31.03.2017)

## ii. Faculty members of the Department

Sl.	Name and	Specialization	Mobile No.	Parmanent address
No.	designation		and E-mail ID	
1.	Dr. T. K. Hath	Economic	09434685670	Bakshibari, Cooch Behar –
	Professor	Entomology	tapanhath@gma	736101
			il.com	
2.	Dr. N. Laskar	Economic	09434483855	West Khagrabari Road.,
	Associate Professor	Entomology	nripendralaskar	Baman para (Near Gourio
			@yahoo.co.in	Moth), Cooch Behar-
				736101.
3.	Dr. J. Ghosh	Economic	09434483767	Srijani Apartment, 3 <sup>rd</sup>
	Professor	Entomology	jaydebubkv@ya	Floor, P.V.N.N. Road bye-
			hoo.com	lane, Cooch Behar, PIN –
				736101
4.	Ms .M. Chatterjee	Acarology	08902326756	Quarter No: B-2/F-2,
	Assistant Professor		moulitachatterje	UBKV, Pundibari,
			e@rediffmail.co	Coochbehar-736165
			m	
5.	Mr. D. Chakraborty	Economic	09647800589	Flat No.4H
	Assistant Professor	Entomology		Ideal Complex (Gate II,
				Block III), H. N. Road,
				Cooch Behar-736101

## iii) Non teaching staffs

Sl.No.	Name and	Mobile No.	Parmanent address
	designation	and e-mail ID	
1.	Mr. T. K. Ghosal	09474521381	P. O.: Gunjabari,
	Technical Assistant		Dist – Cooch Behar
	(Superintendant)		Pin: 736101
3.	Mr. Albin Lepcha	08145749973	6 <sup>th</sup> Mile, Purbong Busty, P. O.:
	Jr. Store Keeper		Kalimpong, Dist: Darjeeling,
			PIN - 734301
4.	Mr. Rathin Layek		Pillkhana Road, South ITI, P. O. & Dist:-
	Record keeper		Cooch Behar, PIN-736101
5.	Mr. Subrata Dhar	09851749595	Vill: Dharmaborer Kuthi, P.O.: Chhoto
	Jr. Laboratory Attendent		Khairatibari, Dist: Cooch Behar,
	_		PIN-736165

#### 6. Academics

## A. Undergraduate

## $i) \ Courses: (as \ per \ IV th \ Deans \ Committee \ recommendation):$

## a) Compulsory courses:

Sl.	Course	Title	Credit	Semester
No.	No.		Hours	
1.	ENT-151	Plant parasitic nematodes and their	1+1	2 <sup>nd</sup>
		management		
2.	ENT-201	Fundamentals of Entomology	2+1	3 <sup>rd</sup>
3.	ENT-251	Insect ecology, IPM including beneficial	2+1	4 <sup>th</sup>
		insects		
4.	ENT-301	Crop pests and stored grain pests and their	2+1	5 <sup>th</sup>
		management		
5.	ENT-302	Apiculture	0+1	5 <sup>th</sup>
6.	ENT-351	Pests of horticultural crops and their	2+1	6 <sup>th</sup>
		management		

## b) Elective courses:

Sl. No.	Course No.	Title	Credit Hours	Semester
1.	ENT-401	IPM (Pest Scouting)	2+1	$7^{\rm th}$
2.	ENT-402	Management of post harvest insect pests	1 + 1	$7^{\mathrm{th}}$
3.	ENT-403	Non insect pest and their management	2+1	$7^{\mathrm{th}}$
4.	ENT-405	Apiculture	1+1	7 <sup>th</sup>
5.	ENT-404	Biocontrol agents and biopesticides	1+1	7 <sup>th</sup>
6.	ENT-406	Pesticides and their management	2+1	7 <sup>th</sup>

## ii) Courses (as per Vth Deans Committee recomendation):

## a) Compulsory courses for the degree of B. Sc. (Ag.) Hons. Faculty of Agriculture:

Sl.	Course	Title of Courses	Credit	Semester
No.	No.		hour	
1.	ENT-151*	Fundamentals of Entomology	4(3+1)	II
2.	ENT-301	Pests of Crops and Stored Grain and their	3(2+1)	V
		Management		
3.	ENT-351	Management of Beneficial Insects	2(1+1)	VI
		Total Credit hour	9	

<sup>\*</sup> Introduced during 2nd semester.

## b) Compulsory courses for the degree of B. Sc. (Hort.) Hons. Faculty of Horticulture:

Sl.	Course	Course Title	Credit	Semester
No.	No.		hour	
1.	ENT-152*	Fundamentals of Entomology	3(2+1)	III
2.	ENT-201	Nematode Pests of Horticultural Crops	2(1+1)	III
		and their Management		
3.	ENT-251	Insect Pests of Fruit, Plantation,	3(2+1)	IV
		Medicinal and Aromatic Crops		
4.	ENT-352	Insect Pests of Vegetable, Ornamental	3(2+1)	VI
		and Spice Crops		
5.	ENT-353	Apiculture, Sericulture and Lac Culture	2(1+1)	VI
	_	Total Credit hour	13	

<sup>\*</sup> Introduced during 2nd semester.

## iii. Undergraduate students passed out during 2016-17 (Plant Protection Module):

(as per IVth Deans Committee recommended syllabus)

Sl. No.	Name of the Student	Reg. No.
1.	Manasij Das	A-2012-12-B
2.	Rakesh Das	A-2012-22-B
3.	Rana Sen	A-2012-24-B
4.	Saayan Samanta	A-2012-25-B
5.	Santu Das	A-2012-26-B
6.	Subhendu Roy	A-2012-29-B
7.	Raina Saha	A-2012-38-B

#### iv. Undergraduate students entered during 2016-17 (Plant Protection Module):

#### (as per IVth Deans Committee recommended syllabus):

Sl. No.	Name of the student	Reg. No.
1.	Bishal Sarkar	A-2013-15-B
2.	Mritunjoy Barman	A-2013-28-B
3.	Rakesh Sardar	A-2013-36-B

## **B.** Post graduate

### i) M. Sc. (Ag.) Degree

Candidates who have passed in Bachelor's Degree in Agriculture, Horticulture or Forestry from a recognized University with a minimum OGPA 6 (5 in 10 point scale and at least 60% marks in Higher Secondary or equivalent examination may apply for admission test). The minimum OGPA and marks for SC/ST/PWD candidates are 6.00 and 50% respectively. Candidates who have passed in Bachelors' Degree with at least 60% marks (50% for SC/ST/PWD) under traditional system may also apply.

Field of specialization: Economic Entomology

## a) Core Courses (M. Sc.)

Course No.	Course-Title	Credit Hour	Remarks
	Core-Courses		
ENT-501	Insect morphology	1+1	
ENT-502	Insect anatomy, physiology and nutrition	2+1	
ENT-503	Principles of taxonomy and classification of	2+1	
	insects		
ENT-504	Insect ecology	1+1	
ENT-506	Biological control of crop pests and weeds	1+1	
ENT-507	Insect toxicology	2+1	
ENT-509	Principles of integrated pest management	1+1	
ENT-510	Pests of field, horticulture and plantation crops	3+1	
	and storage entomology		

## b) Minor/supporting courses (M. Sc.)

Sl. No.	Course Title	Credit hours	Remarks
ENT-505	Insect Pathology	1+1	
ENT-508	Plants resistant to insects	1+0	
ENT-511	Insect vectors of plant viruses and other pathogens	1+0	
ENT-512	Commercial Entomology	1+1	

## c) Master Degree students registered during 2016-17 academic session :

Sl. No.	Title of dessertation work	Name of the student	Reg. No.	Chairman
1	Study on the occurence of important insect pests on mulberry and their management under terai region of West Bengal.	Arpita Baidya	A-2016-06- M	Ms. M. Chatterjee
2	Feild screening of different brinjal genotypes against nematode and some important pests of brinjal under terai agro-ecological condition of West Bengal.	Ajit K. Sahu	A-2016-02- M	Mr. P. Sarkar
3	Taxonomical and bio-ecological studies on predacious Coccinellid beetles associated with various crop ecosystem.	N. Ponnuswamy	A-2016-22- M	Dr. S. Pal
4	Screening of germplasms of <i>Brassica</i> spp. agains insect pests under tera zone of West Bengal	S. Sridhar	A-2016-07- M	Prof. T. K. Hath

## d) Master Degree thesis submitted during 2016-17 academic session

Sl. No.	Title	Name of the student	Reg. No.	Chairman
1.	ITK based pest management module on Boro Paddy terai agroecological system of WB.	Puran Pokhrel	A-2014-15- M	Dr. N. Laskar
2.	Investigation on insect pests of cow pea (Vigna unguiculata (Linn.)) Walp.	Sumit Kumar Satpathi	A-2014-22- M	Dr. S. Pal
3.	Insect pests and natural enemies of rice (Oryza sativa L.) and their sustainable management.	Pritesh Goura	A-2014-13- M	Dr. J. Ghosh
4.	Safflower aphid ( <i>Dactynotus</i> carthemi Hrl.) and its management	Debojyoti Banerjee	A-2013-05- M	Prof. S. K. Senapati

## ii) Ph. D. Degree

Ecademic requirements for the course: Consistently good academic records with Master's Degree in Agriculture / Horticulture / Forestry Science having at least 6.5 OGPA (6.00 OGPA for SC, ST and PWD candidates) from any recognized Indian/Foreign University followed by Bachelors' Degree in Agricultural / Horticultural / Forestry Science under 10+2+4 or 10+1+4 or 11+4. Merit list of the candidates is prepared based on the academic records and score obtained in the entrance test.

Session is usually starts during August.

## a) Courses (Ph. D.)

Course No.	Course Title	Credit hours
ENT-601	Immature stages of insects	1+1
ENT-602	Insect behavior	1+1
ENT-603	Recent trends in biological control	1+1
ENT-605	Advances in host plant resistance	1+1
ENT-606	Advanced acarology	1+1
ENT-607	Molecular approaches in entomological research	1+1
ENT-608	Advanced IPM	2+0

## b) Ph. D. students registered during academic session 2016-17

Sl. No.	Name of the student	Topic of research	Reg. No.	Chairman
1	Puran Pokhrel	Studies on edible insects under northern tract of West Bengal for environmental sustainability and nutritional security	A-2016- 09-D	Dr. N. Laskar
2	Nagendra Kumar	Formulation and evaluation of different food baits and traps for sustainable management of Tephritid fruit flies (Diptera: Tephritidae) under terai region of West Bengal	A-2016- 05-D	Dr. N. Laskar
3	Anil Kumar	Arthropod diversity in sugarcane agroecosystem and their ecofriendly management.	A-2016- 01-D	Dr. S. Pal

## c) Doctoral thesis completed during the academic session 2016-17

Sl. No.	Title	Year (Date of viva- voce)	Author	Chairman
None				

## 7. Students' Achievement

## a) Undergraduate (During 2016-17):

Sl. No.	Name of the Student	Reg. No.	JRF/NTS/Others
1.	Manasij Das		NTS
2.	Rakesh Das		NTS
3.	Rana Sen		NTS
4.	Saayan Samanta		NTS
5.	Santu Das		KRIBHCO
6.	Subhendu Roy		NTS
7.	Raina Saha		NTS

## b) Postgraduate (During 2016-17)

Sl. No.	Name of the Student	Reg. No.	ARS/NET/SRF
1.	Roshna Gazmer	A-2014-13-D	NET, ARS (Prelim.),
			SRF
2.	Bikash Subba	A-2013-03-D	NET
3.	Puran Pokhrel	A-2016-09-D	NET

#### 8. Students' Placement:

Govt: 1 Corporate: 1 Bank: 2 NGO: ...

#### 9. Research Activity:

- i. Areas of research: Applied pest management of crops.
- ii. Research reports submitted: 2
- iii. Awards and gold medals: 0
- iv. Scholarships, stipends and fellowships: 4
- v. On-going research projects under the Department:
- a) Evaluation of some new generation pesticides on chilli and cotton.

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Funding agency – Willowood India Limited
Principal Investigator – Dr. Jaydeb Ghosh
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b) Effect of some new generation insecticides of paddy.

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Funding agency – Willowood India Limited
Principal Investigator – Dr. Jaydeb Ghosh
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c) Evaluation of the bio-efficacy of Phoskill (Monocrotophos 36% SL) against insect pests of Okra.

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Funding Agency - United Phosphorous Limited.
Principal Investigator – Mr. D. Chakraborty
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- vi. Research projects completed during 2016-17:
- a) Evaluation of Carbosulfan 25% EC against insect pest of Brinjal and Okra.

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Funding agency – FMC India Pvt. Ltd. Principal Investigator – Dr. N. Laskar
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## **Salient findings:**

(a) The experiment carried out for two seasons at Pundibari, Cooch Behar, West Bengal to evaluate bioefficacy of Carbosulfan 25% EC against fruit and shoot borer of brinjal indicated that, among different tested doses Carbosulfan 25% EC @ 1500ml/ha has given good control of fruit and shoot borer and remained at par with the Carbosulfan 25% EC @ 1250ml/ha treatment.

- (b) The two season experimental results on phytotoxicity studies, indicated that Carbosulfan 25% EC at 1250ml/ha and at 1500ml/ha did not cause any phytotoxicity effect on the brinjal plants.
- (c) Carbosulfan 25% EC treatments at all the tested doses did not cause adverse effect on population of natural enemies in brinjal ecosystem and it is safe to use in brinjal crop for controlling the fruit and shoot borer at the target dose.

Report submitted to the funding agency.

#### 10. Extension activities

- a) Organises farmers training programmes under different project activities.
- b) Prepare and distribute literatures on improved plant protection technology among the farming communities under different project activities.
- c) Advisories to the farmers are regularly being provided to the farming communities with regard to plant protection and allied aspects.

### 11. Infrastructural and Support Facilities available

- a. Stereo zoom microscopy.
- b. Image analysing with software.
- c. Insect pest identification.
- d. Collection and processing facility for preservation and storage.
- e. Rearing and mass multiplication of insects and natural enemies.

#### 12. Research paper published

- i. Tudu, B., **Chatterjee**, M., Patra, B. and Chakraborty, G. 2017. Optimization of field dose of pyridaben 20% WP for the management of chilli yellow mite (*Polyphagotarsonemus latus* Bank) *Progressive Research*, 12(1) (Special):1229-1231.
- ii. **Chatterjee, M.** and Halder, J. 2017. Occurrence of Papaya mealybug, *Paracoccus marginatus* as an emerging pest of *Hibiscus mutabilis* and its predator from Terai region of West Bengal, *Pest Management in Horticultural Ecosystem*: 23(1):37-40.
- iii. Roy, G., Gazmer, R., Sarkar, S., Laskar, N., Das, G. and Samanta, A. 2016. Comparative bioefficacy of different insecticides against fruit and shoot borer (*Leucinodes orbonalis* Guenee) of brinjal and their effect on natural enemies. *International Journal of Green Pharmacy*, 10(4):257-260.

- iv. **Subba, B.**, Pal, S., Mandal, T. and Ghosh, S. K. 2017. Seasonal incidence of white fly (*Bemisia tabaci* Genn.) infesting tomato (*Lycopersicon esculentum* L.) and their sustainable management. *Journal of Entomology and Zoology Studies* 5(3):879-883.
- v. **Subba, B.** and Ghosh, S. K. 2016. Population dynamics of lady bird beetle and spiders in relation to weather factors in tomato (*Lycopercsicum esculentum* 1.). *Life Sciences International Research Journal*, 3:17-19.
- vi. **Subba**, **B.** and Ghosh, S. K. 2016. population dynamics of thrips (*Thrips tabaci* L.) infesting tomato (*Lycopersicon esculentum* (L.) and their sustainable management. *International Journal of Agricultural Science and Research* (IJASR), 6(3):473-480.
- vii. Pandit, G. K., Krushna, G. S., Choudhuri, N. and **Ghosh, J.** 2016. Dissipation of imidacloprid residues in okra leaves, fruits and soil in Northern region of West Bengal. *Pesticide Research Journal*, 28(1):20-24.
- viii. Ghosh, J., N. Choudhuri and G. Roy 2016. Bio-efficacy of Thiamethoxam 25% WG against sucking pests of okra under terai region of West Bengal. *International Journal of Science, Environment and Technology*, 5(3):1217-1225.
- x. **Ghosh, J.** and Choudhuri, N. 2016. Bio-efficacy of Triazophos 40%EC against brinjal shoot and fruit borer (*Leucinodes orbonalis* Guen.) under terai region of West Bengal. *In*: Proceedings of the Nat. Sem. on "Biodiversity Prospects and Threats: Present Scenario", Published by Tufangang Mahavidyalaya, Cooch Behar, West Bengal.
- xi. Laskar, N., Pal, P. K., Roy, G. and Gazmer, R. 2016. Documentation and validation of Indigenous Technical Knowledge with regard to crop protection of Boro Paddy under Terai region of West Bengal. In: Indigenous Technologies in Plant Protection. ICAR-NCIPM, LBS Building, Pusa Campus, New Delhi-110012, pp-137-146.

## 13. Book Chapter published

Sl. No.	Title of the chapter	Author	Publisher
1.	Diversity of Tephritid flies in sub-	N. Laskar,	
	Himalayan region of West Bengal:	D. K. Sinha,	
	Baseline data for developing	T. K. Hath,	
	management practices.	Н,	Springer
	(Title of the book : Arthropod diversity	Chatterjee	
	and conservation in the tropics and sub-	_	
	tropics. Edt by: Akshay Chakravarty		
	and Shakunthala Sridhara) 2016		

#### 14. Other Publications

- i. Practical Manual of the course ENT-151/152 (Fundamentals of Entomology) (Volume I) as per 5th Deans Committee recommended syllabus (Compiled by N. Laskar, Jaydeb Ghosh, Suprakash Pal, Moulita Chatterjee and Debanjan Chakraborty).
- ii. Practical Manual of the course ENT-151/152 (Fundamentals of Entomology) (Volume II) as per 5th Deans Committee recommended syllabus (Compiled by N. Laskar, Jaydeb Ghosh, Suprakash Pal, Moulita Chatterjee and Debanjan Chakraborty).

# 15. Seminar, Symposium, Conference, Training and Winter/Summer/Refresher course/short course attended/organized

Sl.	Programme	Faculty	Date	Venue and
No.		associated		Organiser
i.	International Conference on	Mr. D.	13-14	BCKV,
	"Agriculture, Food Science,	Chakraborty	August,	Mohanpur, Nadia
	Natural Resource Management		2016	
	and Environmental Dynamics:			
	The Technology, People and			
	Sustainable Development"			
ii.	National Conference on	Ms. M.	17 - 18,	RRS (Hill Zone),
	"Enhancing Nutritional	Chatterjee	March	Kalimpong
	Security through Climate		2017	UBKV,
	Smart Farming Practices"			COBACAS
iii.	National Conference on	Mr. D.	17-18	RRS (Hill Zone),
	"Enhancing Nutritional	Chakraborty	March,	Kalimpong
	Security through Climate		2017	
	Smart Farming Practices"			

## 16. Teachers of the Department associated in multiple assignments

- **a. Ms. Moulita Chatterjee, Assistant Professor :** In- Charge, Voluntary Centre on AICRP-Biological Control Funded by ICAR from 2016 onwards.
- b. Ms. Moulita Chatterjee, Assistant Professor: Associated in ELP on biological control agent mass production.
- **c. Mr. Debanjan Chakraborty, Assistant Professor** : Associated in ELP on biological control agent mass production.
- **d. Dr. Nripendra Laskar, Associate Professor :** Nodal Officer, Bringing Green Revolution in Eastern India (BGREI), monitoring activity under UBKV.

#### 17. Any other (Achievement)

- i. Students from different schools also visit the Department from time to time as a part of their educational tour/visits.
- ii. Farmers from different districts also come in the Department for advisory round the year. Advisory are provided as per their requirement.

# 18. External Examiners attended the Department for conducting viva-voce examination of P. G. students

Sl. No.	Name and designation of the External Examiner	Affiliated Institute	Date	Purpose
1.	Prof. Ajay K. Mukherjee	BCKV		Conduction of thesis viva-voce examination of Master degree students.



PG students in field practical



**UG** students in field practical



A moment of invited lecture by Prof. S. K. Panda, OUAT



**Interaction with the farmers in the Department** 



**College students visiting the Department** 



**Students in insect museum** 



Practical assignment of the students



Students collecting insects in field