

Biodata of Scientist

1. Full name : **Dr. Kartik Neog**
2. Designation : Scientist-D
3. Department/Institute/University : REC, Dimapur, Nagaland
Research Extension Centre
4. Address for communication Institution : Central Silk Board, Ministry of Textiles, Govt. of India, Dimapur, Nagaland - 797116
5. Date of birth : 13.02.1969
6. Sex : Male
7. Education (Post graduate onwards and professional career):

Name of University	Degree passed	Year of passing	Subjects taken with specialization	Class/ Divn.
Assam Agricultural University, Jorhat	M. Sc. (Agri)	1993	Agricultural Biotechnology	
Gauhati University, Assam	Ph. D.	2012	Biotechnology (Tech.)	-

8. Positions held/Research experience in various institutions (NA for in-house personnel)

Employer	Designation	Date of Joining	Date of Leaving
Central Silk Board	SRA	01.08.1995	-
-do-	Scientist-B	01.8.2005	-
-do-	Scientist-C	01.10.2010	-
-do-	Scientist-D	26.02.2014	Till date

9. Awards/ Honors (Not required for in-house personnel)

Year	Award	Agency	Purpose	Nature
2021	Outstanding Scientist Award	VDGOOD Professional Association, India	Contribution in Sericulture Science	Award Certificate
2016	"Best Scientist-Vanya" under R&D Sector	Central Silk Board	-do-	Award Certificate
2014	Best Article Certificate Award	World Journal of Pharmacy and Pharmaceutical Sciences	Research Paper Publication	Certificate
2010	"Best Technology" award	CSIR-NEIST, Jorhat	Technology	Certificate
2007-08	"Promising Budding Scientist"	Central Muga Eri Research & Training Institute, CSB, Lahdoigarh, Jorhat, Assam	Best Research Work	Award Certificate
2006-07	"Promising Scientist"	-do-	Best Research Work	Award Certificate
1999	National Eligibility Test for Lectureship/ Assistant Professorship	Agricultural Scientist Recruitment Board, ICAR, New Delhi	Qualified in ICAR-NET	Qualified certificate
1995	CSIR-NET	CSIR, New Delhi	Qualified in CSIR NET	Qualified certificate

10. Memberships/Fellowships (Not required for in-house personnel):

1. Life Member of the Black, Caspian Seas and Central Asia Silk Association (BACSA).
2. Life Member of the National Academy of Sericulture, India, Bangalore.
3. Life Member of the Indian Academy of Sericulture, Bhubaneswar.
4. Life Member of North East Biotechnological Association, Guwahati.
5. Life Member of the Indian Science Congress Association, Kolkata (Membership No. L14548).
6. Life Member of Society of Biological Chemists, India (Membership No. 2222).
7. Ordinary Member of Indian Society of Agricultural Chemists, Allahabad.
8. Ordinary Member of Indian Society of Entomology, New Delhi
9. Executive Member of Assam Science Society, Assam.
10. Ordinary Member of Indian Society of Genetics & Plant Breeding

11. Patents: (Not required for in-house personnel): 01 (Applied)

12. Publications (Numbers only)

Books/ Book Chapters : 12

Research Papers/Reports : 40+
Gene Sequence Published : Nil
General Articles : 10+

13. Projects submitted/being pursued/carried out by Investigator:

Sl. No.	Title of the project	Funding Agency	Duration of the project	No. of scientists/ Associates working under the project	Total approved cost of the project (Rs. in Lakhs)
01.	All India Co-Ordinated Experimental Trials For Mulberry (AICEM) Phase – II.	CSB	2001-2006	03	<i>In house</i>
02.	All India Mulberry and Silkworm Germplasm Evaluation Programme	CSB	2001-2006	03	<i>In house</i>
03.	National Agriculture Technology Project (NATP) on Plant Biodiversity	ICAR	2002-2004	05	<i>In house</i>
04.	Isolation, characterization and screening of nitrogen fixing and phosphate solubilizing microorganisms from soils.	CSB	2003-2006	01	<i>In house</i>
05.	Assessment of phosphorus and potassium requirements for mulberry based on Mitscherlich-Brey concept.	CSB	2001-2005	03	<i>In house</i>
07.	Assessment of genetic variability of muga silk moth (<i>Antheraea assama</i>) populations using microsatellite markers developed at CDFD, Hyderabad	DBT	2005-2008	03	32.35
08.	Identification, characterization and diagnosis of some important muga silkworm diseases	DBT	2006-2009	03	28.78
09.	Development and standardization of an improved process for cooking and reeling of muga cocoons.	NEC	2006-09	02	10.268
10.	Micro-propagation of muga host plant Som (<i>Persea bombycina</i> Kost)	In house	2006-2009	4	In house
10.	Isolation, identification and characterization of insect stimulants from the muga silkworm host plants and its functional properties" (Code No. AIP-5850)	In house	2009-2012	2	In house
11.	Endocrine regulation of reproduction and enhancement of fecundity in the muga silkworm, <i>Antheraea assamensis</i> " (DST-funded)	DBT	2008-2012	2	35.00
12.	Characterization of soils in different areas of Assam in relation to productivity.	In house	2006-2009	3	In house
13.	Isolation, identification and Characterization of Insect Stimulants from the Muga Silkworm Host Plants and its Functional Properties (AIP 5850)	CSB	2009-2012	1	In house
14.	Induction of Indoor rearing technique for <i>Antheraea assamensis</i> Helfer through field trials	CSB	Regular Programme	2	
15.	Isolation and characterization of antifungal peptides from muga silkworm <i>Antheraea assamensis</i> Helfer	DBT	2014-2019	2	32.75
16.	Effect of plant protection formulations on the growth, development and productivity of Muga Silkworm, <i>Antheraea assamensis</i> Helfer (Saturniidae: Lepidoptera)	CSB	2016-2019	2	15.65
17.	Whole Genome Sequencing and functional genomics of Golden Silk Moth <i>Antheraea assamensis</i>	CSB	2016-2019	2	70.00
18.	Biodiversity assessment of wild silkmths and rearing potentialities of muga (<i>Antheraea assamensis</i> helfer) and eri silkworm (<i>Samia ricini</i> Donovan) for sustainable development in Nagaland	DBT	2017-2019	1	15.25

14. Professional experience and training relevant to the project:

- a) Experience in mulberry sericulture research since 2000
- b) Statistical Tool for Research Data Analysis
- c) Seed Act Rules
- d) Instrumentation (e.g., HPLC, GC, AAS, Colorimeter, Spectrophotometer, Electrophoresis, analytical equipments, etc.)
- e) Having working knowledge on colorimeter, spectrophotometer, sox hlet apparatus, PCR machine, Geldoc System, Gel Electrophoresis systems etc.
- f) Computer application: Expertise in Windows application, MS office such as MS word, Excel, Power Point, Out Look, Internet etc.
- g) Statistical analysis by SPSS System.

15. Highlights of outcome/progress of the project (s) handled during the past 10 years, their outcome and utilization (in 200 words):

- Genetic variability of muga silkworm was assessed by molecular markers. The mitochondrial genome of the muga has been sequenced. Two new muga breeds developed were put into multilocational trial in different govt. and private farms and their performance evaluated.
- Bacterial and fungal pathogens infecting muga silkworms were isolated, identified and characterized. A plant extract formulation (Muga Heal) effective against Flacherie disease of muga silkworm was developed. Application of the formulation can reduce the mortality of muga silkworm due to flacherie disease, increase cocoon recovery 20-30% more and up to 5% increase in silk content of cocoon shell over untreated plots.
- Use of juvenile hormone analogue "Methoprene" has been standardized and popularized which increase fecundity. Developed a buffer (Muga Silk Plus) for cooking of muga cocoons, which enhanced silk recovery up to 53-54% from 45% in traditional method of cooking.
- Integrated nutrition management package (Biofertilizer consortium) for castor plant has been developed application of which enhances leaf yield by 35-40% against the untreated plants.
- A protocol of indoor rearing has been developed, following which up to 3rd instar, 80-90 % survivability of muga silkworms and up to 4th instar, 75-85 % survivability of worms can be obtained.