



Name of the Scientist : DR. REETA LUIKHAM
Designation : Scientist-D
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Category : ST
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A. Education qualification:

Sl No.	Institution/Place	Degree Awarded	Year	Field of Study
1.	Maharaja Sayajirao University Baroda, Gujarat	M. Sc	1990	Zoology (Specialization-Entomology)
2.	Manipur University, Imphal, Manipur	Ph. D	2004	“Cytoplasmic Polyhedrosis Virus Infecting The Oak Tasar silkworm, <i>Antheraea proylei</i> J”.

B. Position and Employment (Starting with the most recent employment)

Sl No.	Organization/Institute	Position	From (Date)	To (date)
1.	CMER&TI, Lahdoigarh, Jorhat	Scientist-D, Head Silkworm Division	August, 2018	Till date
2.	REC, Imphal	Incharge/Scientist-D	April, 2017	July, 2018
3.	RTRS, Imphal	Scientist-D	February 2014	March, 2017
4.	-do-	Scientist-C	August, 2006	February 2014
5.	-do-	Senior Research Officer	March, 2001	July, 2006
6.	-do-	Senior Research Assistant	February, 1991	February, 2001

C. **Certificate of Merit/Appreciation:** 2 (Two)

D. **Honors/Awards** : 3 (Two)

E. **Significant contributions/ technology developed:**

i). Documentation of wild silk moths of Manipur.

ii). Oak Tasar Silkworm eggs can be preserved in refrigerator at 5° to 10°C for 20-25 days without any adverse effect on hatching.

iii). Cold storage technique for oak tasar seed cocoon preservation is at 2.5° C for 130 days.

iv). Termination of pupal diapause by subjecting seed cocoon to 16-17h light treatment (150±5 lux) for a period of 25-30 days.

v). Pupal age is one of the important factors that is the age below 50 days respond quickly to light treatment for termination of diapause and age beyond 51 days show slow response to light treatment resulting in prolonged grainage span in oak tasar culture.

vi). Suitable brushing period for oak tasar 2nd crop;

a) Low altitude (785m ASL) - 20th August to 10th September

b) High altitude (1200m ASL) - 20th July to 10th August.

vii). The phase-wise pruning of host plant before 25-30 days of silkworm brushing along with application of fertilizers NPK @ N 75P25 K38 kg/ha., biofertilizer *Azoto-bector*+*Azospirillum* and *phosphatica* @ NFM20 PSM20 kg/ha and 100gm vermicompost/plant during summer/autumn improved of cocoon yield to the tune of 23-25% against the control of 8-12% .

viii). Prophylactic measures:- spraying 0.03% Nuvan (Dichlorvos) before brushing control the insect pest infection. Spraying of 3 to 5% bleaching powder and 0.03% sodium hypochlorite solution controls the viral & bacterial diseases, thereby increasing the cocoon yield to 23-25% against the control of 8-12%.

ix). Survey and collection from 9 different districts in Manipur revealed the presence of 20 species out of which 16 species under nine genera (*Antheraea*, *Actias*, *Attacus*, *Bombyx*, *Samia*, *Cricula*, *Dendrolimus*, *Lebeda* and *Rhodinia*) are identified. The maximum species composition was noticed in the Genus *Antheraea*.

x). Among the collected sericigenous insects, *Antheraea proylei*, *Antheraea pernyi*, *Antheraea assamensis*, Leimaren (*Bombyx* sp.) and *Samia ricini* were the most common and commercially exploited silkworm species in Manipur.

xi). Among the wild species, three species namely *Rhodinia newara*, *Antheraea helferi* and *Dendrolimus grisea* were reported from Manipur for the first time.

xii). The highest population was recorded in *A. frithi* followed by *S. canningi*, *A. compta*, *B. huttoni* and *A. Attacus* respectively.

xiii). The pierced cocoons of wild silk moth were used for ghicha yarn production of which *A. helferi* produced longest thread of 1323.30 cm and minimum length of 1278.67 cm in *A. proylei* in the Genus *Antheraea*. Out of the *Antheraea* group, *A. selene* recorded highest length (1213.30cm) and minimum yarn was produced in *B. huttoni*, 290.67cm due to its small in size.

F. Ph. D – Research works:

Viral disease in oak tasar silkworm is found as **Cytoplasmic Polyhedrosis Virus (CPV)** belongs to the family **Reoviridae**, Genus- **Cypovirus**. The CPV forms hexahedral shaped polyhedra with a mean diameter of $10.75 \pm 1.2 \mu\text{m}$. The viral genome is fragmented and has eleven segments of double-stranded RNA. The size of the dsRNA fragments ranged from 4.0 to 0.56 Kbp and the total genome size is 24.21 Kbp.

G. IGNOU Academic Counsellor for “Certificate in Sericulture Programme” at study centre (1714P) at RTRS, Imphal and deliver 45 lectures to the student of sericulture during 2008 – 2011.

H. Training imparted: IGNOU student, PGDS, DoS Staff of Nagaland and Mizoram on Oak Tasar culture, muga & Eri cultures, Sericulture farmers, entrepreneurs, etc.

I. Training Undergone: International: 0 and National: 15

J. Seminars/Workshops/ Conference attended: 22

K. No. of Research Publications: International: 12 and National: 36

L. Booklets: 07

M. Dissertation guided: M. Sc and PGDSC

N. Research Projects Undertaken: 05