

List of ongoing Research Projects (as on 1st December, 2016)

#	Title	Start	Closure	Objectives
1	All-India Co-ordinated Experiment on Mulberry (AICEM) Phase-III	Jul. 2011	Dec 2016	<ul style="list-style-type: none"> To test and verify the new mulberry varieties for different regions and seasons in different Sericultural zones.
2	Development of diseases resistance and productive mulberry genotypes with special reference to root rot and root knot diseases suitable for seri-zones of S. India	Jan. 2012	Dec. 2017	<ul style="list-style-type: none"> To identify and select hybrids resistant / tolerant to Root rot and Root-knot diseases through hybridization, selection and evaluation in progeny row trial.
3	Development of seri-lac culture model for income augmentation <i>(in collaboration with IINRG, Ranchi)</i>	Jun. 2012	Dec 2016	<ul style="list-style-type: none"> To work out the additional income generating out of lac production and its economics in relation to mulberry leaf production. To find out the carbon sequestration rate in improving the soil fertility and for the sustenance of crop productivity. To generate the employment for the rural people and improve their livelihood. To study the pest and disease incidence, cross infectivity studies in mulberry and lac host plant.
4	Development of productive bivoltine silkworm breeds/ hybrids of <i>Bombyx mori</i> L. tolerant to nuclear polyhedrosis virus	Jul. 2014	Dec. 2018	<ul style="list-style-type: none"> Development of productive bivoltine silkworm breeds/hybrids tolerant to nuclear polyhedrosis virus.
5	Silkworm disease monitoring of seed & commercial crop rearing of South Indian States.	Oct. 2014	Mar. 2018	<ul style="list-style-type: none"> To estimate the prevalence of silkworm diseases at selected Basic Seed Farms and Commercial Crop Rearing (CPP clusters) in South Indian states. To suggest remedial measures on spot to the farms/farmers to manage the silkworm diseases and to prevent disease outbreaks.
6	Investigation on Semiochemicals of the silkworm uzi fly, <i>Exorista bombycis</i> . <i>(in collaboration with NBAIR, Bangalore)</i>	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> To isolate and identify the kairomones from mulberry leaf, silkworm larva, fecal matter and exuvium eliciting behavioural response in uzi fly. To isolate and identify the sex pheromones of <i>E. bombycis</i>. To determine the bio-efficacy of kairomones (mulberry) and sex pheromones (uzi fly)

				<ul style="list-style-type: none"> To formulate suitable semiochemical based trap for uzi fly.
7	Design and development of silkworm rearing house models for hot & dry and hot & humid areas of peninsular India	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> Determination of heat and moisture content (Enthalpy) of air during different parts of year in North Karnataka, Coastal area of Andhra Pradesh, and Hunsur area in Karnataka. Design(s) of rearing house for creating and maintaining desired levels of temperature and relative humidity by natural and forced ventilation, heating and cooling etc. for the : <ul style="list-style-type: none"> * Hot and dry regions of Central and North Karnataka, * Coastal area of Andhra Pradesh and * Humid regions of South Interior Karnataka [Hunsur region]
8	Improvement of Pure Mysore race for productivity & Silk Quality.	Jan. 2015	Dec. 2017	<ul style="list-style-type: none"> To develop Pure Mysore lines with improved hybrid vigor and fiber quality
9	Study on drought management practices in mulberry Sericulture	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> To analyse the different management practices adopted by farmers to overcome the crisis of drought in mulberry cultivation and silkworm rearing. To study the adoption level of the scientific drought management techniques popularised by the research institutes and to rectify the gaps. To study the preferences and expectations of farmers from research and extension scientists to overcome the crisis effectively
10	A study on the impact of pest & disease management practices in sericulture among the farmers under CPP in South India.	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> To study the impact of adoption of IPM & IDM practices on pests and disease control under CPP area. To study the constraints in adoption of pest and disease management practices.
11	Survey & Surveillance of major pests & their natural enemies in mulberry eco-system.	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> Monitor the incidence of insect pests & their natural enemies in mulberry ecosystem Construction of life tables & to study tri-trophic interaction of pests and their natural enemies. Culture and maintenance of new potential natural enemies for mulberry pests
12	Evaluation of G11 x G19: A new bivoltine double hybrid silkworm for sub-optimal conditions.	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> To evaluate the field performance of the newly evolved bivoltine double hybrid G11 x G19 for productivity and silk quality

13	Development of broad spectrum formulation for effective management of mulberry root rot disease	Jan. 2015	Dec. 2016	<ul style="list-style-type: none"> To develop a broad spectrum formulation for effective management of root rot disease of mulberry
14	Improvement of silkworm breeding in India and Bulgaria <i>(in collaboration with Sericulture Experiment Station, Vratza, Bulgaria)</i>	Jan 2015	Dec 2019	<ul style="list-style-type: none"> To develop silkworm breeds / hybrids with high silk content To identify silkworm hybrids suitable to climatic conditions of India and Bulgaria
15	Development of new bivoltine silkworm hybrids for commercial exploitation	Mar. 2015	Feb 2017	<ul style="list-style-type: none"> To develop improved bivoltine hybrids for sustainable productivity
16	Popularization of Nemahari ó A bio-nematicide for management of root knot disease in mulberry	Mar. 2015	Feb. 2017	<ul style="list-style-type: none"> To develop entrepreneurship model for application and commercial production of Nemahari To demonstrate effective crop protection through Nemahari for management of root knot disease To popularize Nemahari among sericulturists
17	Development of improved crossbreeds of silkworm <i>Bombyx mori</i> L. suitable for south India	Apr. 2015	Mar. 2019	<ul style="list-style-type: none"> To develop crossbreed with high productivity and improved silk quality.
18	Development of Technology for Production of Organic Silk	Jan. 2016	Dec. 2018	<ul style="list-style-type: none"> To produce the mulberry leaf and cocoon through organic practices To study the reeling parameters inorganic silk To workout the economics for production of organic silk
19	Evaluation of modified spacing with special reference to planting geometry for sustainable mulberry leaf production	Jan. 2016	Dec. 2017	<ul style="list-style-type: none"> Identification of appropriate planting geometry for facilitating mechanization and quality mulberry leaf production
20	Identification, characterization, synthesis and field evaluation of sex pheromone of the mulberry leaf roller <i>Diaphania pulverulentalis</i> <i>(in collaboration with NBAIR, Bangalore)</i>	Jan 2016	Dec 2017	<ul style="list-style-type: none"> To isolate and identify the sex pheromones of the leaf roller, <i>D. pulverulentalis</i>. To determine the bio-efficacy of sex pheromones against leaf roller. To develop suitable pheromone based trap for the leaf roller.
21	Validation trials of automated disinfection of rearing house	Jan. 2016	Mar. 2017	<ul style="list-style-type: none"> To evaluate the effectiveness of Automated Disinfection of silkworm rearing house at in-house level.

22	Determination of yield potential of newly developed bivoltine hybrids under tree type mulberry plantation with protective irrigation	Jan. 2016	Dec. 2016	<ul style="list-style-type: none"> To determine the productivity of newly developed silkworm hybrids under tree mulberry cultivation and protective irrigation.
23	Carbon Sequestration in mulberry cultivation and strategies to enhance carbon sequestration.	Jan. 2016	Dec. 2018	<ul style="list-style-type: none"> To enhance the Carbon sequestration in mulberry cultivation with interventions in cultivation methodology.
24	Identification of robust bivoltine silkworm hybrids suitable for high temperature and high humidity conditions	Feb 2016	March 2019	<ul style="list-style-type: none"> To evaluate silkworm breeds/hybrids under high temperature and high humidity. To determine factors influencing the post cocoon parameters under high temperature and high humidity.
25	Socio-economic impact of CPP on bivoltine seri-farmers in Tamil Nadu	Mar 2016	Sept 2017	<ul style="list-style-type: none"> To analyse the socio-economic impact of the Cluster Promotion programme implemented during 2013-17 in Tamil Nadu
26	Impact Of CPP on sericulture development in North Karnataka	Mar 2016	Feb 2019	<ul style="list-style-type: none"> To analyse the socio-economic impact of the Cluster Promotion programme implemented during 2013-17 in North Karnataka
27	Evaluation of improved mulberry genotypes for yield potential, nutrient uptake and use efficiency under varied cultivation practices	Mar 2016	Dec 2019	<ul style="list-style-type: none"> To evaluate yield potential, nutrient uptake efficiency of new mulberry genotypes under varied levels of irrigation and fertilizer inputs. To evaluate new mulberry genotypes cultivated under varied conditions for their efficacy in silkworm rearing. To determine nitrogen use efficiency from soil to cocoon production
28	Identification of robust bivoltine silkworm hybrids suitable for different regions of high temperature and high humidity conditions	Mar 2016	Mar 2018	<ul style="list-style-type: none"> To evaluate silkworm breeds/hybrids under high temperature and high humidity. To determine factors influencing the post cocoon parameters under high temperature and high humidity.
29	Studies on yield gaps in silkworm cocoon production in the states of Andhra Pradesh and Telangana	Mar 2016	Aug 2018	<ul style="list-style-type: none"> To identify the yield gaps in silkworm cocoon productivity at farmers' level in Andhra Pradesh and Telangana states. To study the impact of new technologies on silkworm cocoon production
30	Assessing the efficacy of recommended chemicals in insect/disease/ weed management and their impact on soil biota of mulberry ecosystem in South India	Apr 2016	Mar 2019	<ul style="list-style-type: none"> To assess the efficacy of chemicals in mulberry cultivation for the management of insect pests/ diseases /weeds To assess the factors influencing the efficacy of chemicals utilized for mulberry insect pests/ diseases /weed management

				<ul style="list-style-type: none"> To study the effect of pesticides on soil biota To analyze the residual toxicity of pesticides in mulberry ecosystem
31	Development of value added product from spent pupae of mulberry silkworm <i>Bombyx mori</i> L.	May 2016-	March 2020	<ul style="list-style-type: none"> Isolation and characterization of acid from pupae oil and establishment of pilot production plant.
32	Evaluation Of Dr. Soil on mulberry growth, soil fertility and silkworm growth and development.	May 2016	March 2017	<ul style="list-style-type: none"> Evaluation of Dr. Soil formulation for improvement of soil fertility, mulberry growth, leaf yield and bioassay for silkworm growth and cocoon yield
33	Soil health cards for sericulture farmers in states of Karnataka, Tamil Nadu, Andhra Pradesh, Telengana, Kerala, Maharashtra and Madhya Pradesh	April 2016	March 2019	<ul style="list-style-type: none"> To make farmers aware about the importance of soil fertility on the production of quality mulberry leaves by issuance of soil health cards
34	Evaluation of mulberry genetic resources for functional traits associated with resilience to climate change (Collaborative- CSGRC, Hosur)	Aug. 2016	July 2019	<ul style="list-style-type: none"> To estimate variability in different functional traits associated with N use efficiency and drought tolerance in mulberry germplasm To identify donor parents for specific traits having adaptive significance To standardize the assessment method for different functional traits to identify desired mulberry genotypes
35	Identification of resistance in mulberry germplasm for root knot nematode disease	Oct 2016	Oct 2019	<ul style="list-style-type: none"> Identification of mulberry genetic resources for root knot nematode resistance
36	Identification of indices for abiotic stress tolerance in mulberry with special reference to moisture and alkalinity stress	October 2016	Oct 2019	<ul style="list-style-type: none"> To identify physiological and biochemical indices of abiotic stress tolerance in mulberry
37	Transcriptome analysis of silkworm for identification of molecular markers for improvement of silk quality	October 2016	Oct 2019	<ul style="list-style-type: none"> To carryout transcriptome analysis of silk gland in mulberry silkworm breeds for identification of markers for silk quality To analyze important trait-related gene pathways in silkworm and establish gene-gene and gene-protein interaction pathway
38	Feed supplementation studies for improving young age silkworm rearing in Chawki Rearing Centres	October 2016	Oct 2019	<ul style="list-style-type: none"> To enhance feed response, growth and survival of chawki silkworms through feed supplementation and correlate chawki larval growth to cocoon productivity
39	Development of Seri-business models for enterprises in pre-cocoon sector	October 2016	Aug 2018	<ul style="list-style-type: none"> To identify and study the feasibility of different seri-business enterprises in pre-cocoon sector and develop optimum business plans to facilitate fund flow.

40	Development of multi-viral disease tolerant bivoltine silkworm breeds/hybrids of <i>Bombyx mori</i> L. through marker-assisted selection	October 2016	Aug 2020	<ul style="list-style-type: none"> • Identification of multi-viral (BmDNV1, BmNPV and BmIFV) tolerant bivoltine breeds using molecular markers • Development of multi-viral disease tolerant bivoltine silkworm breeds through pyramiding of resistance • Development of multi-viral disease tolerant bivoltine silkworm hybrids
41	Standardization and validation of LAMP (Loop mediated isothermal amplification reaction) technique for the detection of <i>Nosema bombycis</i> infection in silkworm	October 2016	Feb 2018	<ul style="list-style-type: none"> • Standardization and Validation of LAMP based technique for specificity and sensitivity in detection of <i>Nosema bombycis</i> infection in silkworm and silkworm eggs. • Fine tuning LAMP based techniques for specificity and sensitivity in early detection of <i>N. bombycis</i>.