

**ITEM No. 17: Such other information as may be prescribed and thereafter update these publications every year.**

**Concluded Projects:**

YEAR	SECTION / DIVISION	PROJECT TITLE
2004-05	Mulberry Breeding & Genetics	Primary evaluation of new mulberry lines for their yield and quality. (November,2000-October,2004)
	Mulberry Breeding & Genetics	Mulberry germplasm evaluation in relation to quality, quantity and stress resistance (April,2000 –March, 2005)
	Mulberry Physiology	Screening of improved mulberry varieties for flood tolerance (April, 2001 – March, 2005).
	Rearing Technology & Innovation	Induction of tri-moulting in bivoltine silkworm by physiologically active chemicals and their utilization as male parent for multi x bi hybrid preparation (March, 2002 To January, 2005)
	Statistics	A study on input resource management for farmers having sericulture as one of the major crops (2001 – 2004).
	Training	A study on impact of specialized training for extension personnel in dissemination of improved sericultural technologies. (2002 – 2004).
2005-06	Mulberry Agronomy	PPA3223: Updation of improved package of practices for newly authorized mulberry varieties under irrigated condition (Nov, 2001-Dec,2005)
		PPA 3249: Effect of plant nutrition systems (IPNS) in mulberry crop production and protection (Sep., 2002 - Dec., 2005)
	Mulberry Breeding & Genetics	PIE 3221: All India Mulberry & Silkworm Germplasm evaluation programme (AIMSGEP) of CSGRC, Hosur (Jun, 2001 – Mar, 2005)
		PIE3222: All India Co ordinated experimental Trials for mulberry (Phase-II) (Apr, 200 1 – Dec, 2005)
	Soil Science & Chemistry	PPS 3154: Assessment of Phosphorus and Potassium requirements for mulberry (Morus alba L.) based on Mitscherlich-Bray concept (Jul, 1999-Jun, 2005)
	Silkworm Physiology & RTI	APR 3250: Development of rearing package for optimizing cocoon yield in West Bengal (Nov, 2002 – Feb, 2006)
	Silkworm pathology	ARP 3285: Studies on the pathogens, pathogenesis and control of gattine in silkworm (Bombyx mori L.) (Oct, 2002 - Sept, 2005)
		ARP 3286: Studies on the prevention and control of nuclear polyhedrosis and white muscardine diseases of silkworm, Bombyx mori L. using botanicals (Oct, 2002-Sept,, 2005)
2006-07	Mulberry Physiology	PIP-3284: Screening of mulberry varieties for chowki rearing. (Apr.,03 - Oct., 06)

	Mulberry Pathology	PRP-3314: Field evaluation of botanicals and bio-control agents against major mulberry diseases.
	Agronomy	PPA-3248: Nutrient management in newly evolved HYVs and its influence on growth, quality and productivity of leaf and cocoon (May, 2002 – Oct., 2006)
	Agronomy	Pilot Study: Effect of application of different forms of preconditioned ureain soil on quality, yield and N-status of plant and soil of irrigated mulberry (Jan., 2006 – Dec., 2006).
	Eri Cell	Research Programme: Eri pupae, an alternative sources for the preparation of Glucosamine Hydrochloride: an important bio-chemical for medicinal use (Jan., 2006 – Dec., 2006)..
	Jorhat	PIE-3321: All India mulberry and silkworm germplasm evaluation programme (AIMSGEP) [ in collaboration with CSGRC, Hosur] ( 2000 – 2006).
	Jorhat	AIE-3257: Evaluation of selected mulberry silkworm ( <i>B. mori</i> ) germplasm for biotic and abiotic stress in the identified hot spot (2001-2006)
	Koraput	PPA-3242 : Studies on in situ soil moisture conservation in rainfed mulberry garden in the red soils of Eastern ghat Highland zone of Koraput district in Orissa (Jan., 2002 – Mar.,2007)
	Extension	TAR Programme : Evaluation and Refinement of package of practices for mulberry cultivation under new plantation with irrigation Nov., 2002 – Mar., 2007)
2007-08	RSRS, Koraput	PPS 3253 : Studies on the effects of amendments and ameliorations of problematic soils of Eastern Ghat high land zone of Orissa with reference to mulberry cultivation under rainfed conditions (April, 2003 – December, 2007)
	Mulberry Breeding & Genetics	PIB 3191: Selection of High Yielding Mulberry Varieties for improvement of cocoon production in Gangetic Plains of West Bengal and similar regions (November, 2000 –October, 2007)[
	Silkworm Breeding & Genetics]	AIB 3237: Utilization of polyvoltine breeds for improve-ment of survival in bivoltine silkworm <i>Bombyx mori</i> L. (March, 2002 – June, 2007)
	Silkworm Breeding & Genetics	AIB 3349: On farm trials of evolved bivoltine and multivoltine congenic breeds and their hybrid performance at farmers level (December,2005–November,2007) [In Collaboration with DOS, W.B)
	Biotechnology	DBT FUNDED: Mulberry genome characterization: DNA profiling for ascertaining genetic diversity and construction of framework linkage map. (February, 2005 – November, 2007*) (Collaborative with CCMB- Hyderabad, and CSR&TI- Mysore)
	SW Physiology & RTI	Programme : Field trial of rearing package evolved through the project APR-3250 (November,2006 - October, 2007).
	Extension	A study on constraint analysis in mulberry sericultural technology transfer (January, 2006 – December, 2007)
	Extension	Role of extension personnel in disseminating sericultural technologies as perceived by the sericulture farmers (January, 2006 – December, 2007)

	Extension	A study on impact of different schemes on sericultural farmers of West Bengal ( <i>January, 2006 – December, 2007</i> )
	Mulberry Breeding & Genetics	PIE 3310: Evaluation of improved mulberry genotypes for acidic soils of West Bengal ( <i>June, 2004-May, 2008</i> ) ( <i>Collaboration with RSRS, Kalimpong &amp; DOS, Matigara, WB</i> )
	Entomology	PRE 3311 : Efficacy of botanical insecticides for management of mulberry pests and their bio safety to silkworm and natural enemies ( <i>July, 2004 – June, 2007</i> )
	RSRS, Jorhat	PIP 3256: Evaluation of mulberry genetic resources for abiotic and biotic stresses in the hot spot locations ( <i>December, 2004 – June, 2007</i> ) ( <i>Collaborative with CSGRC, Hosur</i> )
	RSRS, Jorhat	ARP 3156: Studies on the efficacy of <i>coelophora unicolor</i> f.(coleoptera coccinellidae) as a bio-control agent against whitefly on mulberry ( <i>April, 2003 – March, 2008</i> )
2008-09	MBG	PIB-3341: Preliminary evaluation of newly evolved mulberry genotypes for their productivity and quality ( <i>November, 2004 – March, 2008; extension up to March, 2009</i> )
	Mulberry Physiology	PIP-3356: Studies on the variability in photosynthesis and related physiological parameters of some promising mulberry genotypes for future breeding programme. ( <i>February 2006–March,2009</i> ).
	Mulberry Physiology	Prog.: Field trial of flood tolerant mulberry variety ( <i>April, 2006 – March, 2009</i> ) ( <i>In collaboration with DOS, W.B</i> )
	Extension	Prog.: Development programme on sericulture at Murshidabad district--An IVLP approach ( <i>July,2005–March,2009</i> ) ( <i>A collaborative programme with DOS, West Bengal .</i>
	Eri Cell	Prog.: Collection, establishment and evaluation of some castor ( <i>Ricinus communis</i> L.) genotypes for their adaptability in Eastern part of India ( <i>March, 2005 - February, 2009</i> )
	Eri Cell	Prog.: Evaluation of eri silkworm ( <i>Philosamia ricini</i> Hutt.) stocks under different agro-climatic conditions of Eastern India ( <i>March, 2005 – December, 2008</i> )
	Biotechnology	Identification of DNA markers associated with disease and pest resistance in mulberry ( <i>Morus</i> spp.) ( <i>January, 2005 – September, 2008</i> )
	Agronomy	Study on mulberry based parallel multiple cropping under irrigated condition ( <i>October, 2004 – December, 2008</i> )
2009-10	MBG	PIB-3365: Develop-ment of Superior Triploid Mulberry for High Productivity and Quality
	Agronomy	PPA3360: Improve- ment of leaf productivity through antitranspirants application in mulberry under rainfed condition
	Soil Science & Chemistry	PPS 3346 : Studies on the effect of sulphur on mulberry growth, yield, nutrient uptake and soil fertility in the Gangetic plains of Eastern India.

	Mulberry Physiology	PIE3319: Screening of germplasm and raising of progeny towards development of disease resistant mulberry against bacterial leaf spot (BLS).
	SBG	Large Scale Trial of new Silkworm hybrids (Programme:)
	SBG	Validation cum multi-locational trial of new silkworm breed/ hybrids at farm level. (Programme :)
	Silkworm Pathology	ARP3351: Studies on the morphology, life cycle and pathogenicity of some microsporidia infecting silkworm, <i>Bombyx mori</i> L and their identification.
	Silkworm Pathology	Immunization of silkworm <i>Bombyx mori</i> L. against bacterial disease (Pilot Study)
	Biotechnology	PIT3359: Development of high frequency regeneration protocol from leaf disc explants in mulberry.
	Silkworm Physiology & RTI	PPA3366: Development of integrated package for raising Chawki leaves and young age silkworm rearing for successful cocoon production.
	Extension	MOE-3396 : Technology Assessment and Refinement through Institute Village Linkage Programme (Phase-II)
	RSRS, Ranchi	<b>PPA- 3395:</b> Integrated nutrient management for increasing the leaf productivity of mulberry ( <i>Morus alba</i> ) under rainfed condition.
2010-11	Agronomy	<b>PPA-3362</b> Effect of variations in planting geometry on mulberry canopy development, quality and quantity of leaf.
	Farm management	<b>PPA-3358</b> Organic farming in Mulberry- An approach for improvement in silk Industry
	Entomology	<b>PRP-3394</b> Studies on the efficacy of some insecticides for management of white fly and their bio safety to silkworm, <i>Bombyx mori</i> L. July,2007 -June,2010
	SB&G	<b>AIB-3393</b> Development of commercial hybrids of silkworm <i>Bombyx mori</i> L. by identification of bivoltine parents through screening in different seasons of West Bengal.
	RTI & P	<b>AIP-3421</b> Physiobio-chemical characterization of selected silkworm germplasm accessions during seed crop seasons
	Agronomy	Validation trial of mulberry based intercropping system in wider spacing under irrigated condition.
	Entomology	Field evaluation of botanical insecticides for management of major mulberry pests and their impact on leaf yield. ( <i>In collaboration with the REC, Mothabari and REC, Nabagram</i> )
	Mul. Physiology	Validation trail of waterlogged tolerant mulberry variety C-2028 at farm level. ( <i>In collaboration with DOT (Seri), W.B &amp; NSSO</i> ).
	Mul. Physiology	Impact of plant growth regulators on photosynthetic activities, leaf productivity and quality in mulberry especially under cold stress condition.

## Publications:

### Research paper

#### I. Journal

1. Bandyopadhyay, U. K., Santha Kumar, M.V., Mukhopadhyay S.K., Mitra, P and Bajpai, A. K. (2010). Biological Control studies on whitefly *Dialeuropora decempuncta* Quaintance and Baker (Homoptera: Aleyrodidae) through native predator *Brumoides suturalis* (Fab.) on mulberry in West Bengal. *Journal of Sericulture and Technology*.1 (1):66-69.
2. Bose P.C. , R. Kar and A. K. Bajpai (2010) Effect of levels and sources of sulphur on growth, yield, nutrient uptake of mulberry (*Morus alba* L.) and its economics. *Sericologia*, 50(4): 509-18.
3. Bose P.C., R. Kar, S. K. Majumder, R. N. Dutta and A. K. Bajpai (2010) Fertilizer prescription on soil test basis for targeted yields of mulberry under rain fed condition of West Bengal. *Journal of Crop and Weed*, 6(2): 6-9.
4. Bose P.C. and R. Kar (2010) Soil-plant-manure-water-disinfectant quality testing, advisory and consultancy services. Brochure, CSR and TI, Berhampore (WB).
5. Bose P.C., R. Kar and A. K. Bajpai (2010) Soil test based sulphur fertilization for targeted yields of mulberry. *Journal of Crop and Weed*, 6(1): 22-24.
6. Chattopadhyay S., K. A.r Ali, S. G. Doss, N. K. Das, R. K. Aggarwal, T.K. Bandopadhyay, A. Sarkar and A. K. Bajpai (2011) Association of leaf micro-morphological characters with powdery mildew resistance in field-grown mulberry (*Morus* spp.) germplasm. *AoB PLANTS*. doi: 10.1093/ aobpla/plr002.
7. Chattopadhyay,S. K.A. Ali, S. G. Doss, N. K. Das, R.K. Aggarwal, T.K. Bandopadhyay, A. Sarkar and A. K. Bajpai (2011) Evaluation of mulberry germplasm for resistance to powdery mildew in the field and greenhouse. *Journal of General Plant Pathology* 76: 87-93.
8. Chaudhuri M., D. Chakravarty, T.K.Biswas, A.Ghosh and A.K. Bajpai (2010). Salient features of castor genotype RG 2824 suiting ericulture in West Bengal. *Journal of Oilseeds Research*. 27: 259-261.
9. Das R., Pamehgam M., Singh, R. and Bajpai, A.K.(2010): Distribution of Mulberry (*Morus* Sp.) in North Eastern Region. *Journal of Assam Science Society* Vol.51: 164-169.
10. Debaraj, Y and Singh, R (2010): Seasonal biology of Bihar hairy caterpillar, *Spilomia obliqua* Walker (Lepidoptera: Arctiidae) on castor, a primary food plant of eri silkworm. *Uttar Pradesh J. Zool.* 30(1): 17 – 20
11. Debaraj, Y., Singh, R. and Bajpai, A.K. (2010): Evaluation of some mulberry varieties for yield and quality through bioassay in Manipur, North East India. *Uttar Pradesh J. Zool.* 30 (2): 165 – 168.

12. Ghosh, M.K., S.P. Chakrabarti, Shiv Nath, P.K. Ghosh, R.N. Datta and A.K. Bajpai. (2010). Impact of Improved Mulberry genotypes on Cocoon production in Acidic soils of Hills and Foot Hills. Uttar Pradesh J. Zool.30 (2): 197-199.
13. Gogoi, S.N., and Sarma, S.K. (2010): Ecological study of summer weeds in tea (*Camellia sinensis* L. Kuntze) plantation of Dibrugarh and Tinsukia districts of Assam. Advance in Plant Science 22(1); 277 – 279.
14. Gogoi, S.N., and Sarma, S.K. (2010): Weed biomass of dominant species in weed communities of tea (*Camellia sinensis* L. Kuntze) plantation of Assam. Indian Journal of Forestry. 33 (1): 89 – 90.
15. Kar R., Bose P.C. and A. K. Bajpai (2010) Studies on the residual effect of nutrient inputs on mulberry with special emphasis on the gradient application of phosphorus. Sericologia, 50(3): 393-398.
16. Maji, M. D. (2011) Genetic variability of mulberry (*Morus* spp.) germplasm against powdery mildew (*Phyllactinia corylea*) and identification of high resistance genotypes. Archives of Phytopathology and Plant Protection. 44: 513-519.
17. Mukhopadhyay S. K., M. V. Santha Kumar (2010). Forecasting of thrips incidence in mulberry. Insect environment 16(2) pp 5-6.
18. Mukhopadhyay S.K., M.V.Santha Kumar, A.K. Saha & A.K.Bajpai. (2011) Management of pink mealy bug, *Maconellicoccus hirsutus* (Green) (Hemiptera: Pseudococcidae), a major pest of mulberry, *Morus alba* (L.) with botanicals. *UP jour. of Zoology* 31(1). pp 9-14.
19. Santha Kumar M. V., P. Mitra, D. Chakravarty, M. Patnaik, N.K. Das, A.K. Saha and A.K. Bajpai (2010). Seasonal incidence of jassids *Empoasca flavescens* (F.) on various castor genotypes. Journal of Oilseeds Research. 27: 284-286.
20. Singh M.K., Mishra P.K., Roy A.K. and Mishra P.N. (2010). Comparative performance of newly evolved three way crosses of mulberry silkworm in Chotanagpur plateau. J. Appl. Bioscience, 36(1): pp 115-17.
21. Singh, R, Nirupama, R and Gangopadhyay, D. (2010): Effect of refrigeration of non-diapause eggs of the mulberry silkworm, *Bombyx mori* L. Sericologia 50(1): 129 – 132.
22. Singh, R, Nirupama, R, Das, Ranuma and Bajpai, A.K. (2010): Heterosis and combining ability in newly developed polyvoltine and bivoltine breeds of the silkworm (*Bombyx mori* L.). Journal of Assam Science Society 51 (2): 98 – 104.

## II. BOOK/ BOOKLET

### Book Chapter

1. S.K. Gupta, Z. Hossain, M. Mohanan, P. Mitra, K. Mandal and A.K. Bajpai. **2011**. Electron Microscopic Observation of Five Microsporidia Infecting Silkworm *Bombyx mori* L. In “Recent Trends in Sericulture”, Edited by: Dilip Kumar, P.N. Pandey, Kamal Jaiswal, Sunil P. Trivedi and Md. Razauddin, Narendra Publishing House, Delhi, India, pp : 173.

2. **Directory of concluded research projects 2010**, Published by the Director, CSR&TI, Berhampore.
3. **A Compendium of Research Publication** Published by the Director, CSR&TI, Berhampore.
4. Bose P.C. and R. Kar (2010) Soil characteristics and nutritional management of mulberry in Eastern and North-Eastern India. Book, CSR&TI, Berhampore (WB).
5. Booklet: A. K. Saha, T. Datta Biswas and M.K.Majumdar. 2011. Bengali booklet on “Unnata projectite rituvittic polupalan” has been published during Resham Krishi mela.
6. Leaflet: A. K. Saha, T. Datta Biswas and S.K.Nayak. Bengali leaflet on “Samabhabe Chawki polu bitaran” has been printed and distributed during Resham Krishi mela.

### III. Popular article/Reports:

1. Bandyopadhyay U.K. & S.K.Mandal. Awareness programme by RSRS, Kalimpong Indian silk. June 2010.49:2; 33
2. Bandyopadhyay, U.K.and C.Maji (2011).
3. Bandyopadhyay, U.K.and Mandal, S.K. (2010). Awareness Programme under farmers Field School at Mahakaldara. Indian Silk (June). 1(2): 33.
4. Chanda, S.; Saha, L.M.; Shibnath; Kar, N.B.; Saha, A.K. and Ghosh, A. (2011) Resham keet me yugman bal. Indian Silk, 1(11): 38 – 40.
5. Doss, S. G.; Chakraborti, S. P.; Roychowdhuri, S.; Maji, M. D.; Roy, B. C.; Saratchandra, B and Bajpai, A. K (2011) CT-44(C2047): A high yielding mulberry genotype with delayed senescent. Indian Silk. 1 (49 old): 7-9.
6. Mandal S.K. & U.K. Bandyopadhyay. Training Programme by RSRS, Kalimpong. Indian silk. August 2010.49(1):4:33
7. Mandal S.K. Awareness programme by RSRS, Kalimpong. Indian Silk. November, 2010(1)49:7; 33
8. Mandal S.K. Group discussion by RSRS, Kalimpong Indian silk. Sept 2010.49 (1):5-6:31
9. Mandal S.K. Resham Krishi Mela, at RSRS, Kalimpong. Indian silk. Sept 2010.49 (1):5-6:34
10. Mandal S.K.Technology awareness programme at Lingsay. Indian silk. April 2010.48(12s) 36
11. Mandal, S.K. and U.K Bandyopadhyay, (2010). Field Day Programme with Self Help Group members at RSRS, Kalimpong. Indian Silk. (March).1(11): 34.
12. Mandal, S.K. and Bandyopadhyay, U.K (2010). Resham Krishi Mela at RSRS, Kalimpong Indian Silk (Sept. – Oct). 1(5 – 6) : 34.
13. Mandal, S.K. and Bandyopadhyay, U.K. (2010). Trainers’ Training Programme by RSRS, Kalimpong. Indian Silk (August). 1(4) : 33.
14. Mandal. S.K. Field day by RSRS, Kalimpong. Indian silk Sept 2010.49 (1):5-6:33

15. Rahman M.S., S. Gandhi Doss, M.K. Ghosh and A.K. Bajpai. (2010). C-2036 (RG-76): A Cold Tolerant Mulberry Genotype. Indian Silk.Vol. 1 No.7 (49): 8-9.
16. Saha, L.M.; Chanda, S.; Kar,N.B.; Saha, A.K.; Mondal,K.; Bajpai, A.K. and Rajee Urs, S. (2010) SSPC, Raiganj – Setting seed quality trends. Indian Silk, 1(4): 10 – 12.
17. Singh, R., Nirupama, R., Gongopadhyay, D. and Qadri, S.M.H. (2010): Androgenesis – A new Approach in Silkworm Breeding, Indian Silk 49 (old) V. I (2). P. 10 – 11.

#### IV. Proceedings of Seminar/ Workshop/ Symposium:

**In Technical compendium of state level workshop on sericulture management held on 15-16 April'10 Directorate of Textiles (Govt. of Orrisa) at Bhubaneswar.**

1. Das, R., M Pamehgam and, R. Singh (2010): Role of Self Help in Women empowerment in Assam. PP: 42 – 44.
2. Maji, M. D., Dikshit, B. K. Das, N. K. Ghosh, A. and Bajpai, A. K. (2010) Development of weather based forecasting models of mulberry diseases of Orissa. *Technical compendium of State Level Workshop on Sericulture Management, April 15-16, Bhubaneswar.* pp. 137-143.
3. Mukhopadhyay S. K., M. V. Santha Kumar, Saha A.K. and Bajpai A.K (2010). Forewarning calendar for thrips and whitefly in Orissa pp 142-43.
4. Pal N. B., Saha A.K. and Bajpai A.K Orrisa – A potential zone for generation of bivoltine seed cocoons for commercial autumn and spring crops of West Bengal.

#### V. Attended and Papers/ Abstracts presented in Workshop/ Seminar/ Symposium.

1. Symposium on “Recent Advances in Sericulture Research” held at Bangalore, May17-19-2010.

S. Roy Chawdhury Sc-D	R.Banerjee Sc-C	S.K. Gupta Sc-C	S. Chakraborty Sc-B	N. Suresh Kumar Sc-C
A. K. Saha Sc-D	M. K. Singh Sc-C	Shivnath, Sc-C	G.C. Das Sc-C	B.B. Patnaik Sc-B

2. **22nd National Congress on Parasitology, “Advances in Parasitology: A novel approach towards a disease free world” held during 30th October – 1st November, 2010 at University of Kalyani, Kalyani, W.B..**

1. Chakrabarty S., Mitra,P., Hossain,Z., Saha, A.K., Bajpai A.K. and Manna,B. (2010). Studies on immunological impact of some chemicals, botanicals, antibacterial proteins and live non-pathogenic bacteria in silkworm, *Bombyx mori* L. against bacterial disease. 71-72.
2. Mitra,P., Chakrabarty S., D.P.Haldar , P.K.Bandopadhyay and A.K.Bajpai (2010) Studies on some physiological changes in silkworm, *Bombyx mori* L following bacterial inoculation to screen the disease tolerant breeds and hybrids. 65-66.

3. Patnaik B. B. M. Jayalakshmi, A. K. Saha and A. K. Bajpai (2011). Hemagglutinins as possible candidates towards immune defense in the silkworm, *Bombyx mori* L. pp. 69-70.
4. Patnaik, M., Bhattacharya, D.K, Mitra, P.,Saha, A.K. and Bajpai, A.K. (2010). Effect of *Chaetothyrium* sp., a causal agent of sooty mould on silk production of *Bombyx mori*. Abstract : 8.
5. Santha Kumar, M.V., Dutta, P., Chakrabarty, S., Mukhopadhyay, S.K., Das, N.K., Mitra, P., Saha, A.K. and Bajpai, A.K. (2010). Influence of abiotic factors and parasitoid, *Eritmocerus adustiscutum* on the incidence of whitefly, *Dialeuropora decempuncta*. Abstract: 21.

**3. National Conference of Plant Physiology. Physiological and Molecular Approaches for Crop Improvement under changing Environment. Held at BHU, Varanasi on 25<sup>th</sup> & 27<sup>th</sup> November, 2010**

1. Ghosh M. K, P.K. Ghosh, Shiv Nath, A. K. Misra, T. Sengupta, M.K. Singh and A.K. Bajpai. (2010). Physiological Evaluation of Mulberry Genotypes under High Moisture Stress Condition. **Abstract** No. 03-40. pp. 105.
2. Ghosh, M. K., Shiv Nath, S. P. Chakrabarti, A. K. Misra, M.K. Singh and A. K. Bajpai. (2010). Physiological Evaluation of Mulberry Genotypes Suitable under Low pH Soil. **Abstract** No. 03-41. pp. 105.
3. Kar R., P. C. Bose, S. K. Majumder, R. N. Dutta and A. K. Bajpai (2010) Humic acid-a soil conditioner as well as Mulberry (*Morus alba* L.) growth promoter. Abstract, pp. 252.

**4. National Conference on Evaluation of Biodiversity of Eastern Himalaya and Adjoining Plains held at University of North Bengal, Siliguri, West Bengal on December 1-4, 2010**

1. P. C. Bose, R. Kar, D. Das and S. K. Majumder (2010) Site specific nutrient management in sericulture to maintain biodiversity in Eastern sub-Himalayan region. Abstract, pp. 38-39.

**5. National Symposium on Perspective in the Plant Health Management. December 14-16, 2010 Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Gujarat.**

Maji, M. D.; Dutta, S. K. and Maji, C. (2010) Epidemiology and prediction of brown leaf rust of mulberry caused by *Peridiopsisora mori*. S-07.86.pp.61. (ORAL).

**6. International Conference on Energy, Environment and Development from Stockholm to Copenhagen, December, 10-12, Sambalpur University, Orissa**

Maji, C.; Mukherjee, S.; Das, N. K.; Pandit, D.; Roychodhury, S and Bajpai, A. K (2010) Mulberry sericulture in conservation of soil and environment. BRC-11, p. 57-58.

**7. National Conference on Sericulture Innovations: Before and Beyond held during 28<sup>th</sup> – 29<sup>th</sup> January, 2011** organized by Central Sericultural Research & Training Institute, Mysore, Karnataka.

1. Bagchi S.N. , Pandit D., Ghosh S., Mitra P., and Bajpai A.K. Impact of TAR-IVLP for development of mulberry sericulture in eastern and northeastern india. TOT/O-2; p 215.
2. **Chakrabarty S., B.Manna, Mitra, P., Hossain,Z., Saha, A.K. and Bajpai A.K. (2011). A comparative on efficacy of different inoculum concentrations of *Nosema* spp for larval mortality and spore multiplication in different seasons and development of pebrine disease in mulberry and vanya silkworms during infection, cross-infection and transovarian transmission. SPP/O -1; p 91.**
3. Chakravarty D., M.Chaudhuri, and A.K. Bajpai. (2011). Studies on the relationship between leaf lamina yield and yield components of some high leaf yielding castor (*Ricinus communis* L.) food plants suitable for ericulture. VHP/P- 8; p 160.
4. Chaudhuri M., D. Chakravarty, N.K.Das, and A.K. Bajpai. (2011). Genetic variability and association of yield and yield traits in RG 2824- a promising castor (*Ricinus communis* L.) food plant for eri silkworm. VHP/P-7; p 159-60.
5. **Datta Biswas T., S. K. Nayak, A. K. Saha and A. K. Bajpai .2011. Screening of some promising multivoltine silkworm breeds for leaf silk conversion efficiency. SIM P -8; p 65.**
6. **Ghosh M.K., Shiv Nath, P.K. Ghosh and A.K. Bajpai. (2011). Development of Low Temperature Stress Tolerant Mulberry Genotype for Eastern and North-Eastern Plains of India. MIM/O-001; p. 01.**
7. **Gogoi, S.N., Handique, P.K. and Boruah, M. Phenotypic variability in plus trees of Som, *Persea bombycina* Kost in North East India VHP/O-1; 157.**
8. **Jalaja S.K., Reddy M.M., Mogli T, Saha S. and Qadri, S.M.H. sodium potassium ratio as an index for determining alkalinity tolerance in mulberry MIM /P- 9; p. 6.**
9. Kar, N.B.; Majumdar, M.K.; Chanda, S.; Saha, L.M.; Saha, A.K. and Bajpai, A.K.(2011) Studies on inter and intra-cocoon variation in physical and tensile properties of raw silk of different voltinism of *Bombyx mori* L. available in West Bengal. PCT/O-2; p-131 .
10. Patnaik, M., Mitra, P., Santha Kumar, M.V., Kar, N.B., Das, N.K., Bhattacharya, D.K., Saha, A.K. and Bajpai, A.K. (2011). Efficacy of new pesticides in controlling whitefly (*Dialeuropora pentatuberculata*) and its impact on silkworm rearing. Abstract : SPP/P-7; p-94.
11. Rajaram, S; Qadri, S.M.H. (2011) Water Use Efficiency in mulberry crop under different types and levels of irrigation for sustainable leaf productivity in ‘Tamil Nadu conditions. MPP/P 10; p 15.
12. **Rao N.R., R.Sahu, B.K.Dikshit, K.C.Brahma. K.V.S.Rao & P.Mitra. Testing of New silkworm Hybrids in different agroclimatic codition of Odisha. SIM/P -15; p 68.**

13. Santha Kumar, M.V., Dutta, P., Chakrabarty, S., Mukhopadhyay, S.K., Das, N.K., Mitra, P., Saha, A.K. and Bajpai, A.K. (2011). Effect of whitefly population and abiotic factors on population dynamics of a native predator, *Micraspis discolor* (Coleoptera : Coccinellidae). Abstract: MPP/O- 1; p 15.
14. Sharma S.P., Ram K. and Prasad B.C. management of gall insect *T. fletcheri* Minor Crawf , a major pest of primary tasar food plants through ecofriendly techniques. VHP/P-9; p 160.

#### **8. International Symposium on System Intensification towards Food & Environmental Security held at BCKV, Kalyani on 24-27 February, 2011.**

1. Das, D., Santha Kumar, M.V., Chatterjee, H., Mitra, P. and Majumdar, M.K. (2011). Varietal susceptibility of mulberry (*Morus* sp.) to root mealy bug (*Paraputo* sp.) (Hemiptera : Pseudococcidae) in Darjeeling hills of West Bengal. Abstract no.: O/2 p 25
2. Das, N.K.; Saha; A.K.; Roy Chowdhury, S & Majumdar, M.K. Current status of profitability in mulberry sericulture in Gangetic plains of West Bengal. Abs P 4/?? p. 432.
3. Datta Biswas T., A.K. Saha, S. K. Nayak, A. Ghosh, N. B. Kar and M.K. Majumdar.2011. Studies on the effect of planting geometry in Chawki mulberry garden through moulting and rearing test. Abs. P 2/41 p: 141
4. Dutta, S. K.; Maji, M. D.;Ghosh, A, Roy Chowdhury, S; Choudhuri and Majumdar,M.K. (2011) Study on different diseases severity of mulberry (*Morus alba* L.) in different seasons of Aizawal district (Mizoram). Abs P/4 32 p 301.
5. Kar R., P. C. Bose, S. K. Majumder and A. Ghosh (2011) An account of soil organic carbon reserve under long-term fertilizer experiment in mulberry (*Morus alba* L.). pp. 109-110,
6. Maji, M. D.; Dutta, S. K. and Maji, C. (2011) Epidemiological studies of Powdery mildew of mulberry caused by *Phyllactinia corylea*. Abs. P 4/30 p. 299.
7. Mukhopadhyay, S.K., Roy, B.C., Banerjee, R., Santha Kumar, M.V., Saha, A.K. and Majumder, M.K. (2011). Identification of cultivars for utilizing as infector row during evaluation of mulberry. Abstract no. Abs P 1/27 p 57:
8. Rajaram, S., Qadri, S.M.H. (2011) Water savings in mulberry cultivation through improved micro irrigation under Tamil Nadu conditions. Abs. P 3/15 p 231. (Adjudged as the best research paper presentation and awarded with shield & certificate for the same)
9. Roy Chowdhury, S; Umasankar; Das, N.K.; Sahu, P.K. & Majumdar, M.K.Studies on involvement of women and their contribution share in sericulture activities. Abs. O 6/1 p.423.
10. Sengupta T., Saha A.B., Chatterjee S., Setua M., Ghosh A.,& Bajpai A.K. Performance of waterlogged tolerant mulberry variety in the low land of Murshidabad district of West Bengal. Abs . P 2/42 p 143.

#### **9. National Symposium on Research and Development in Castor : Present status and future Stratiges on 22-23 October 201o at DoR, ICAR, Hyderabad.**

Santha Kumar, M.V., Mitra, P., Chakrabarty, D., Patnaik M., Das, N.K., Saha, A.K. and Bajpai, A.K. Seasonal incidence of Jassid *E. flavescens* on various castor genotypes. Abs Chaudhuri M., Chakravarty D., Biswas T.K., Ghosh A. and A.K. Bajpai. Salient features of castor genotypes RG2824 sining ericulture in West Bengal Abs

**10. National Conference on Biotechnology, bioinformatics and bioengineering at Deptt. of Botany Karnatak University during 17-18 December 2010.**

Tiwari P.K. Prasad B.C. and Majumder M.K. Application of in vitro techniques in tasar food plants improvement. Abs.

**11. Interactive Session on Silkworm Breeding at Satellite Silkworm Breeding Station, Coonor during 2<sup>nd</sup> & 3<sup>rd</sup> December 2010.**

Saha A. K., N. Suresh Kumar, G. K. Chattopadhyay, H. Lakshmi, M. K. Majumdar and R.K. Khatri (2010) Present Status and future strategies for development of silkworm breeds/hybrids for Eastern and North-Eastern India. Lead paper pp.17-21

**TRAINING ATTENDED**

Institute/Place	Subject	Duration	Participants
Seribiotech Laboratory, Bangalore-560 035,	Molecular Biology Techniques	20.05.2010 - 22.05.2010	S K.Gupta Sc-C S.Chakraborty, Sc-C. R. Banerjee Sc-C
Statsoft, Kolkata	Statistica Software.	16.08.2010	R. Banerjee Sc-C
Directorate of Oilseed Research , Hyderabad.	Exposure on castor biology.	24.10.2010- 30.10.2010	M. Chowdhury, Sc-C
NAARM, ICAR, Hyderabad	Winning Research Proposals	28.10.2010 - 03.11.2010	M.K.Ghosh, Sc-D A.K.saha Sc-D R. Banerjee, Sc-C
Tamil Nadu Agricultural University	Advances in molecular techniques in sericulture	22.12.2010- 05.01.2011	P.K.Tewary Sc.- C H. Lakhmi Sc.- C
NAARM, ICAR, Hyderabad	Foundation Training for Young Scientists of CSB	4.01.2011- 18.01.2011	N.Lalitha, , Sc-B H.Lakshmi Sc-B R.L.Ram Sc-B
GB Pant University of Agri. & Tech. Nainital.	Animal Cell Culture Techniques	17.01.11 - 22.01.11	Zakir Hossain. Sc-C
National Productivity Council, Jaipur	Systematic problem solving.	1.02.2011- 05.02.2011	S. Roy Choudhury Sc-D

LBS National Institute of Administrative Research, LBS Mossourie.	Ethics & Values	28.02.2011 – 4.03.2011	A.K. Misra Sc-C S. K. Gupta Sc-C
Indian Institute of Entrepreneurship. Guwahati	Disciplinary Proceeding	03.01.2011- 06.01.2011	R. Singh, Sc.-D
CSR&TI, Berhampore	Mulberry Race Authorization Programme	20.01.2011- 22.01.2011	R. Bhutia Sc.- C M. Pamehgam, Sc.- C A.H.Naqvi, Sc.- C N.R.Rao Sc.- C
Madurai Kamaraj University, Madurai	UGC-NRCBS Visiting Fellow	13.05.2010 – 12.07.2010	B. B. Patnaik, Sc.- B

**Award:**

- A poster presentation entitled *Water savings in mulberry cultivation through improved micro irrigation under Tamil Nadu conditions*. In the International Symposium on System Intensification towards Food & Environmental Security held at BCKV, Kalyani on 24-27 February, 2011. by S. Rajaram, Scientist-C adjudged as the best poster in the section and awarded with shield & certificate.
- An oral presentation entitled *Epidemiology and prediction of brown leaf rust of mulberry caused by Peridiopsisora mori* by Dr. M. D. Maji, Scientist-C at National Symposium on Perspective in the Plant Health Management. December 14-16, Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Gujarat adjudged as **2<sup>nd</sup> Rank**.