

के मू ए अ प्र सं के रेशम समाचार CMERTI SERICULTURE NEWS



CENTRAL MUGA ERI RESEARCH & TRAINING INSTITUTE,

ISO 9001 : 2008 Certified Institute

CENTRAL SILK BOARD,

Ministry of Textiles : Govt. of India

LAHDOIGARH : JORHAT : ASSAM

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Muga Germplasm Maintenance

Muga Germplasm Maintenance Centre (MGPMC) of CSB started its functioning at Damalgre in West Garo Hills, Meghalaya under REC, Tura. The centre came into the existence through a MOU dated 29th Sept., 2007 between CSB and Sericulture Department, Govt. of Meghalaya. A hillock land of 1.80 ha at a distance of 21 km towards West from REC, Tura at Dakopgre has been developed where nearly 1200 som and soalu plants have been raised to rear and maintain different muga breeds in the Centre. One RCC building as Mounting Hall, constructed through State Govt. Sericulture Department of Meghalaya was taken over the possession on 27th November, 2013. At present, four different muga silkworm accessions have been maintained since September, 2013.



(Report: Dr. J.C.D. Phukan)



Entrance of MGPMC Centre, Damalgre

SPECIAL FEATURES

Research Council meeting : The 44th RC meeting was convened under the chairmanship of Director of the institute on 9th January, 2014 to review the R & D activities of the institute and its nested research stations.

Research Advisory Committee meeting : The 27th RAC meeting was convened under the chairmanship of Prof. Krishnamoorthy Kannan, University School of Biotechnology, Guru Gobind Singh Indraprastha University, New Delhi and former VC of Nagaland University on 15th March, 2014. Dr. M.V. Samson, former Director of CSB; Prof. P. Pathak, AAU, Jorhat; Dr. A. Tikadar, Sc.-D, C.O., CSB, Bangalore; Shri D. J. Borah, DDS, DOS, Assam and Shri Jayanta Patra, Muga farmer, attended the meeting as members.

Dr. A. Bhattacharya, Scientist-D, RO, CSB, Guwahati and Dr. B. K. Singh, Scientist-D, MSSO, CSB, Guwahati were also present in the meeting. Dr. K. Giridhar, Director of the institute briefly appraised about the R & D activities, performance of new breeds of eri and muga, NIAM and DBT sponsored training programmes, trainings under ISDS and CDP for farmers and DOS staffs on different technologies of muga and eri, the efforts made for getting ISO 9001: 2008 certificate and recognition of the institute as a Research Centre/Institute for Ph.D. work by both Dibrugarh & Guwahati Universities of Assam etc. The chairman suggested the scientists to undertake research on utilization of silkworm biomass in different fields and emphasized on IPR protection.

Extension Officers' Meeting : EOM was held on 8th & 9th May, 2014 to review the activities of different RECs.

ISDS Review meeting : ISDS Review meeting was held on 21st April, 2014.

ISO Management Review meeting : The ISO Management Review meeting was held on 26th April, 2014 to discuss the R & D activities as per guidelines of ISO 9001:2008.

Training Programme on ISO 9001 : 2008 : A training programme on ISO 9001 : 2008 QMS and Internal Quality Audit was conducted by Dr. K. Giridhar, Director, CMER&TI to all the staff of RMRS, Boko on 5th June, 2014. Few staff of SSPC, Boko also participated in the training programme.

हिन्दी प्रशिक्षण : संस्थान में दिनांक ८ व ९ मई २०१४ को अधीनस्थ इकाईयों के अधिकारी की बैठक आयोजित हुई। इस बैठक में दिनांक ९ मई २०१४ को संस्थान तथा इसकी अधीनस्थ केन्द्र/इकाईयों में राजभाषा हिन्दी के कार्यान्वयन पर चर्चा तथा हिन्दी कार्यशाला आयोजन किए जाने का कार्यक्रम भी शामिल किया गया। कार्यक्रम के अनुसार दिनांक ९ मई २-०१४ को आयोजित गैर-तकनीकी सत्र में केन्द्र/इकाईयों में राजभाषा हिन्दी कार्यान्वयन से संबंधित विभिन्न गतिविधियों पर

हुई चर्चा में संस्थान के निदेशक डॉ के. गिरिधर और अधीनस्थ केन्द्र/इकाईयों के प्रभारी अधिकारीवर्ग उपस्थित रहे। इस अवसर पर उपस्थित अधीनस्थ केन्द्र/इकाईयों के प्रभारी अधिकारीवर्ग को राजभाषा हिन्दी कार्यान्वयन में हिन्दी को राजभाषा के रूप प्रयोग करते समय उत्पन्न तमाम समस्याओं के निवारण से संबंधित उपयोगी जानकारियां देने तथा नोटिंग व ड्राफ्टिंग जैसे विषय पर अभ्यास करावने के उद्देश्य से कार्यशाला आयोजित किया गया जिसमें संस्थान के क.हिन्दी अनुवादक श्रीगजेन टाये ने हिन्दी नोटिंग के बारे में कहा कि नोटिंग केवल एक सामान्य कागजात नहीं बल्कि यह एक कानूनी दस्तावेज है, इसलिए इसे लिखते समय सावधानी बरतनी चाहिए। उन्होने हिन्दी नोटिंग लिखते समय प्रयोग में आनेवाले कुछ नमूने वाक्य के सांचे के संबंध में विस्तृत रूपसे व्याख्यान दिया। इस अवसर पर निदेशक ने अधीनस्थ केन्द्र/इकाईयों के सभी अधिकारियों से आग्रह किया कि वे अपने-अपने केन्द्र में राजभाषा हिन्दी का कार्यान्वयन पर जोर दें तथा वे अपने अधीनस्थ अधिकारियों व कर्मचारियों को अधिक से अधिक हिन्दी में कामकाज करने का निरन्तर प्रोत्साहित करते रहें।

(Report: Dr. Mrs. U. Hazarika and G. Taya)

EXTENSION

Vanya Reshom Krishimela : Vanya Reshom Krishimela, an annual event of the institute was organized on 28th February, 2014 at Demow of Sivasagar district, Assam. About 1000 sericulturists, participants from NGOs, SHGs and entrepreneurs from Sivasagar, Dibrugarh, Golaghat, Jorhat districts of Assam took part in the function. In the inaugural session, Director of the institute highlighted about the achievements in the R&D, extension activities and training programmes under various developmental schemes. He requested all the farmers to update their knowledge during Krishimela and to give feedback on the technologies.

An exhibition was arranged on the occasion and different technologies on pre and post cocoon sector were displayed. Entrepreneurs and SHGs participated in the exhibition displayed their diversified fabrics.

The inaugural session was presided over by Sri Jogesh Deori, Director of Sericulture, BTC, Kokrajhar. He pointed out about huge development of product diversification like cosmetic, medicine and UV protected fabrics of Vanya silk done in China, Indonesia and Thailand. Chinese products of eri socks, towel, muffler etc were displayed in the exhibition. He announced about new North East Textiles Promotion Scheme and Japan International Cooperation Agency (JICA) to be launched shortly in NE India. He informed about medicated value of eri silk, establishment of Wild Sanctuary at Manas of BTC and infrastructure development of state farms in BTC, release of Bodoland silk directory, Bodoland silk logo and website of Bodoland sericulture department shortly. He also told about fixation of eri cocoon price from current Rs. 500-550 to Rs 600 per kg. He expected research from scientists to get more recovery of muga silk above 50% during reeling and to develop a pupa separation machine for benefit of eri farmers.

Lightening the lamp, Shri Sushanta Borgohain, MLA appealed the farmers for more involvement in muga and eri culture to uplift their economy as muga and ericulture are traditional practice of Assam

Dr. D.P. Khanikar, Professor & Head, Sericulture Department, AAU, Jorhat appealed farmers for augmentation of food plants utilizing barren land. He requested sericulture farmers not to uproot muga plantation in the name of tea plantation as muga culture is also economically viable cottage industry and pointed out remunerative nature of eri culture through selling of pupae. He insisted for plantation of alternate perennial eri food plants like *Ailanthus grandis* and *Ailanthus excelsa*.

Shri Prabin Das, Joint Director of Sericulture, Upper Assam, Jorhat spoke on historical background of sericulture in Assam referring vedic era and appealed farmers to get privilege of development scheme like CDP.

Shri P. K. Buragohain, Asst. Director of Sericulture, Sivasagar, Assam stressed on change of place of muga seed crop rearing. Dr. K. Das, former Scientist of CMER&TI appealed farmers to adopt improved technologies developed by CSB. Shri Shiva Konwar, the president of *Reshom Palak Santha* opined that self realization, fruitful coordination is the only way to enrich sericulture which has great potential for employment generation.



In the occasion, nine technology pamphlets in Assamese were released. In the technical session, Dr. K. Neog, Shri D. Goswami, Dr. M. C. Sarmah, Shri, S. A. Ahmed and Shri Z. M. S. Khan, Scientists of CMER&TI, spoke on different improved technologies both in pre and post cocoon sectors through audiovisual aids. A fruitful interaction took place between farmers and the scientists. Feed back of Vanya Reshom Krishimela was also collected from the farmers.

(Report: Dr. M. C. Sarmah)

Krishimela at RMRS, Boko : RMRS, Boko organized Vanya Reshom Krishimela on 11th March 2014. Dr. K. Giridhar, Director, CMER&TI chaired the programme and Sri S. Goswami, ACS, Circle Officer (Revenue), Boko honoured as Chief Guest. Md. H. Morari, ACS, BDO, Boko; Sri B. Rabha, Extn. Officer, Kamrup; Md. M. Haque Chaudhary, Extn. Officer, Goalpara and Smt. M. Bhattacharyajee, Lecturer, Goalpara College participated as special guests.

More than 500 rearers, graineures, reelers and weavers from Kamrup and Goalpara districts, officials of Department of Sericulture, Govt. of Assam and scientists of CSB participated at the mela. An exhibition was organized on the occasion which was inaugurated by Sri Md. H. Morari, ACS, BDO, Boko. A technical session chaired by Sri A. K. Gogoi, Scientist, RMRS was held wherein the farmers and scientists present interacted on various problems being faced by the farmers.

(Report: A.K.Gogoi)

Training under ISDS : During January to June, 2014, 160 sericulturists were trained on muga and eri silk worm rearing, eri cocoon spinning and muga cocoon reeling with an aim to increase employment and income generation through different sectors of sericulture.



(Report: P.K.Handique and Rajib Singh)

Resource Development Programme : Shri B. Choudhury, Scientist, CMER&TI & Zonal Training Co-ordinator under C & ED Cell of CSB organized a Resource Development Programme for state govt. officers of NE states at Guwahati.

Awareness on Biointensive Farming

Techniques : Under a ToT programme of CMER&TI, REC, Coochbehar organized an Awareness Meet on 19th June, 2014 at Sericulture Composite Unit, Khagrabari, Coochbehar, W.B. to aware the farmers on bio intensive farming techniques. Dr. S. N. Bagchi and Dr. N. Biswas, scientists of the REC stated that the programme has been initiated with an aim to improve the soil fertility through green manuring, vermicomposting and intercropping.

Sri. M. K. Baidya, Deputy Director, DOT(S), Coochbehar hoped that Muga rearers will increase their soil fertility status through this avocation. Dr. (Mrs.) Urmimala Hazarika, programme leader and scientist of CMER&TI described the details of the programme to the farmers and requested the farmers to take this programme as a challenge for the development of muga culture. Dr. B.N. Sarkar, Scientist of CMER&TI requested the farmers to involve with the programme very keenly and follow the organic farming techniques in true sense.



Sri J. Roy, progressive farmer expressed happiness on launching this programme for the muga farmers of Coochbehar. Dhaincha (*Sesbania aculeata*) seeds for green manuring were also distributed to the selected muga rearers of different blocks. Altogether, fifty participants attended the programme.

(Report: Dr. S.N.Bagchi, Dr. N.Biswas, Dr. (Mrs) U. Hazarika and Dr. B. N. Sarkar)

Awareness on utilization of Ailanthus in eri

rearing : Awareness Programme on utilization of *Ailanthus* viz., Borpat (*Ailanthus grandis*) and Borkesseru (*Ailanthus excelsa*) was held on 10th June, 2014 at Barekuri Gaon Panchayat under Tinsukia District. Barekuri area was identified as potential area for promotion of ericulture considering abundance of Borpat in each and every household of more than 2000 farm families and nearby forest areas. The people of the area though primarily depend on agriculture, have excellent traditional skill for eri silkworm rearing.

The farmers' are being motivated to take up sericulture on commercial scale utilizing the available leaf of Borpat. The awareness programme was organized with Department of Sericulture, Govt. of Assam under DST, Govt. of India sponsored research project "Sustainable Eri Silkworm Rearing: Evaluation of *Ailanthus* species". Shri Ashok Hazarika, Suptd. of Sericulture, Tinsukia, other Officers & Officials of DOS, Tinsukia; Shri Dignata Mech, Dr. M.C. Sarmah and Shri S.A. Ahmed Scientists of CMER&TI, took part as resource persons. Different aspects of eri silkworm host plant management, eri silkworm rearing management, schemes/ programmes for promotion of ericulture, value addition and marketing of eri cocoons, conservation, utilization of Borpat in ericulture and Borpat as a tool for mitigation of climate change were discussed. About 200 women eri silkworm rearers attended.



(Report: S.A. Ahmed & Dr. M.C. Sarmah)

Awareness on Improved technologies of muga culture:

- Institute organized two awareness programmes on 22nd June, 2014 at Chinatoli, Dergaon, Golaghat and on 27th June, 2014 at Barekuri village of Tinsukia to enlighten the local farmers about package of muga culture before commencement of *Aherua* crop. Dr R. Das, Scientist emphasized on agronomical package of muga food plants, management of pest and diseases of muga food plants and use of 'Lahdoi' for control of muscardine disease in muga. Sri D. Goswami, Scientist explained chawki rearing technology, advantages of adopting net and bamboo moutage and its impact in cocoon productivity. Sri D. Mech, Scientist briefed on integrated package of muga culture. In each of the awareness programmes, more than hundred farmers participated.

(Report : Mrs. R. Das and D. Mech)

- REC, Tura organized an awareness programme at the Village Rongbakgre- patchigre of Rongram in West Garo Hills, Meghalaya on 25th June, 2014. An exhibition was also organised to exhibit the different alliances of muga to the articiants. Shri C. K. Marak, Zonal Officer, Sericulture and Weaving, Tura, other Seri. Field Officers / Officials, progressive farmers and Pvt. Graineurs participated in the programme.



(Report: Dr. J.C.D. Phukan)

Demonstration on muga culture : Frontline technology demonstration on muga culture was organized on 17th June, 2014 at Khowang, Dibrugarh. Sri D. Goswami, Dr. Ranjana Das, Dr N. I. Singh, Scientists demonstrated the technologies of agronomical package of muga host plant, mechanical and biological control of stem borer in som, early stage rearing of muga silkworm under nylon net, advantages of adopting nylon net and advised the farmers to adopt the technology for better crop performance. More than thirty farmers participated in the programme.



(Report : Mrs. R. Das and D. Mech)

Demonstration on disinfection and disease management in muga silkworm: Two demonstrations on disinfection and disease management in muga silkworm were conducted at Charaideo of Sivasagar district on 16th June, 2014 and at Khowang, Dibrugarh on 17th June, 2014.

A cluster of 30 farmers conducted muga silkworm rearing at Charaideo and a cluster of 20 farmers conducted rearing at Khowang. Farmers were demonstrated on Sodium hypo chloride (NaOCl) spray as disinfectant before, after and during the time of rearing. NaOCl is effective against bacterial, viral and fungal diseases to minimize the mortality of larvae. Farmers were instructed to spray 0.01% solution with the help of Foot /Power sprayer on the foliage once at 2-3 days before rearing, once each at 2nd, 3rd and 4th instars and twice at 5th instars on the body of the larvae along with the foliage. 25 farmers attended the programme.



(Report: Dr. N.I.Singh & D. Goswami)

Field day cum demonstration on eri culture

Demonstration on eri culture was organized during June, 2014 at Dadhara, Dharampur of Golaghat. Dr. M. C. Sarmah and Sri S.A. Ahmed, Scientists briefly demonstrated agronomical package of eri host plantation, Chawki rearing technology and use of improved strip type moutange for better cocooning of eri silkworm. Smt Ranuma Das, Scientist emphasized on adoption of new technologies in cooperative way for large scale rearing. More than thirty women farmers participated in the programme.



(Report : Mrs. R. Das and D. Mech)

Field Day on muga culture : REC, Tura organized field days on muga culture at the Village "Gonglanggre" under C & R D Block, Selsella on 8th January, 2014 and on 19th June, 2014 at the Waribok, Jenjal of West Garo Hills, Meghalaya. District Sericulture Officer, Tura and other Seri. Field Officers / Officials, progressive farmers and Pvt. Graineurs participated in the day.



(Report: Dr.J.C.D.Phukan)

One Step in Rangchali Muga VGR : Director, CMER&TI along with a team of scientists visited Rangchali Muga VGR, Khowang, Dibrugarh on 27th May, 2014. Around 40 farmers in eight groups conducted muga *Jethua* commercial crop rearing with 12,000 g seed and expected at least 70 cocoons per dfl.



Most of them undergone ISDS training at the institute and applied their technical knowledge and skill to obtain a good harvest. Wishing a satisfactory harvest, the team left the VGR.

(Report: D. Goswami)

Sri Kiron Phukon a lead Muga rearer : Sri Kiron phukon is a lead muga rearer in Boiragibor village of Demow, Sivasagar. He took muga culture as main profession along with agriculture.



Sri Phukon has 25 acres of area of Som plantation. He got acquainted with modern technologies of muga culture demonstrated by the staff of CMER&TI, Lahdoigarh, time to time. He is having all the basic requisites for becoming a successful and a model muga rearer and has been conducting muga rearing and grainage for last 15 years. Besides, seed cocoons, he is doing reeling of his own. He produced 50,000 seed cocoons by rearing 1650 dfls and 16.7 kg raw silk during 2009-10 and generated an income of Rs. 2,00,400/-. His income was Rs. 3,08,000/-, Rs. 1, 27,500/- and Rs. 2, 32,500/- during 2010-11, 2011-12 and 2012-13 respectively.



Sri Phukon received best farmer award from district administration in 2004 and certificate of appreciation from the Deputy Commissioner of Sivasagar in 2013.

(Report: Mrs. R. Das)

A CASE STUDY : Under Integrated Skill Development Scheme of Ministry of Textiles, Govt. of India, the institute organized 18 batches of training and trained 310 farmers during 2013-14.

To collect feedback information of trained farmers, a survey was conducted during May-June, 2014 in different locations of Golaghat and Sivasagar districts of Assam.



During survey, Shri Prabin Gogoi, Shri Tarun Gogoi of Dhekiachinga gaon and Shri Nripen Borgohain of Patsaku Kotoky Papong Gaon, Sivasagar district of Assam were met. They expressed that the ISDS training influenced for gaining improved knowledge in post and pre cocoon activities of muga and eri culture. Shri Prabin Gogoi recently conducted rearing of 300 muga dfls and harvested 20,000 cocoons with an earning of Rs.20,000/-. In the preceding crop also, he could harvest 25,000 cocoons by rearing 800 muga dfls and earned Rs. 50,000/-. He also conducted rearing of 20 eri dfls and earned Rs.3000/-. Shri Tarun Gogoi generated an income of Rs.1000 - 5000 from selling of eri cocoons. Presently, he has completed muga rearing of 500 dfls and harvested 30,000 cocoons. Another farmer, Shri Nripen Borgohain is also engaged in eri rearing and commercial muga reeling activities. He produced 5 kg muga yarn worth of Rs. 60,000/- and generated a profit of Rs. 10, 000/-.

(Report: Dr. M.C. Sarmah, Dr. N.I. Singh and Dr. (Mrs.) R. Das)

ACHIEVEMENT

- ♦ Dr. K. Neog, Scientist received the best research paper award for his article on "Studies on the endocrine regulation of reproduction and ultra structure of brain and reproductive organs of muga silkworm" published in the *World Journal of Pharmacy and Pharmaceutical Sciences* 3 (1).
- ♦ B. N. Sarkar, Scientist was awarded Ph.D degree by Gauhati University, Guwahati for his thesis entitled "A study on eri silkworm ecoraces with special reference to seed production".

TRAINING / MEETING ATTENDED

- Mrs M. D. Senapati, Scientist and Mrs. Nilakshi Nath Saikia, TA of this institute undergone training w.e.f. 5th to 9th May, 2014 at SSTL, Kodathi, Bangalore on "Eri Seed Technology".
- Dr. K. Neog, Dr. M.C. Sarmah and Dr. (Mrs.) U. Hazarika, Scientists participated in the Thematic meeting on Application of Radiation Technology and Radioisotopes in the field of Agriculture, Food and Health w.e.f. 28th to 30th May, 2014 at AAU, Jorhat.

PUBLICATION

• Research papers :

B. Choudhury, R.Kumar, P. Chutia and G. Rajkhowa (2014) Host infestation potentiality of *N. thymus* to control the uzifly of muga silkworm-A bio-control tool for controlling uzifly. Biological Forum 6(1): 1-4.

K. Neog, B. G. Unni, S. Dey, C. Z. Renthlei, S G E. Reddy, P. Dutta, P. Sonowal and R.K. Rajan (2014) Studies on the endocrine regulation of reproduction and ultra structure of brain and reproductive organs of muga silkworm. World Journal of Pharmacy and Pharmaceutical Sciences, 3 (1).

U. Hazarika, S. K. Borthakur, R. Chakravorty and K. Pathak (2014) Identification of promising som (*Persea bombyaina* Kost) based intercropping system for increasing productivity and sustainability. International Journal of Tropical Agriculture. 32 (1-2).

S.P. Sandilya, P M Bhuyan and D K Gogoi (2014) Isolation and phosphate solubilization assay of castor rhizosphere microorganisms from different localities of Assam presented in the National Seminar held on 29th March, 2014 at Cotton College, Guwahati, Assam.

• Books / Book chapters / manuals:

✓ A.K. Gogoi and G.P. Singh (2014) Vegetative propagation of S3 & S6, the superior morphotypes of som. RMRS, Boko (edited book).

✓ G P Singh, A.K.Gogoi and K Giridhar (2014) Illustrated Manual of muga silkworm disease management and crop protection.

✓ P. K. Handique (2014) Muga aru eri khetir boigyanik padhati. (edited book).

• Technical bulletins / leaflets (Assamese) :

✓ Eri palu khadya brikhya roopan aru pratipalan padhati

✓ Eri palu palanar unnat paddhati.

✓ Muga palu palanar unnat karikari kaushal.

✓ Muga khadya briksha mazza khowa pook niyantran.

✓ Uzi makhir joibik niyantran.

✓ Muga Silk plus.

✓ "Bani" Muga suta kata jantra.

✓ Muga khoola sukua jantra

✓ Unnat manar muga beez utpadanar prajyuktigat pranali.

✓ Eri palu palanar bigyansanmat Kaushal.

✓ Muga shilpar bikashat boigyanik padhati samuh

Transfer /Joining

♦ Sri Z.M.S. Khan and Dr. G. P. Singh, Scientist-D have been transferred to CTRTI, Ranchi.

♦ K. Kantharaju, Deputy Director (Admn.) has been transferred to C.O., Bangalore.

♦ Sri Chandra Gogoi, AT has been transferred to RSTRS, Khanapara and Sri H.K. Das, AT has joined at CMER&TI.

Promotion:

♦ Sri ZMS, Khan, Sri P.K.Handique, Sri D. Goswami, Dr. N. I. Singh, Sri G. Rajkhowa, Dr. (Mrs) R.Das, Mrs Ranuma Das, Sri D. Mech and Dr. K. Neog of CMER&TI; Sri A.K.Gogoi and Dr. G.P.Singh of RMRS, Boko; Dr. R. Verma of RERS, Shadnagar, Sri S. Saikia of REC, Lakhimpur; Dr. A.U. Khan of REC, Fatehpur, Dr. S. N. Bagchi of REC, Coochbehar were promoted as scientist D w.e.f. 26th Feb., 2014.

♦ Dr. D. K. Gogoi, Dr. B.N.Sarkar, Dr. M. Chutia, Dr. R. Kumar of CMER&TI, were promoted as Scientist C w.e.f. 26th Feb., 2014.

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