



TESTING AND SERVICE FESILITIES

YEAR	ACTIVITIES	ACHIEVEMENTS
<p>2001-02</p>	<p>The suitability of natural dyes for dyeing coir yarn/fibre was studied under the collaborative project with IIT, New Delhi and 16 shades out of natural dyes were taken and shade cards prepared. A collaborative project was conducted with ATO-DLO(Agro Technological Research Institute, The Netherlands) and TRIADE BV, The Netherlands on development of environment friendly dyes for coir and organised a seminar-cum-demonstration on 11th to 13th July 2001 at CCRI to disseminate the findings of the project among the coir entrepreneurs. Coir yarn was dyed in different shades using the dyestuffs developed under the project.</p> <p>39 shades were matched and an amount of Rs.1250/- was realised as service charges.</p> <p>201 novel designs suitable for printing and weaving coir products were produced on the CAD system and an amount of Rs.8700/- was realised from the sale of design cards from Design cell at CCRI.</p> <p>15 field demonstrations were conducted for treating 840 tonnes of unretted coir fibre using COIRRET in Vycome yarn production centres of Poochackal, in Kerala at 3 selected sites. Undertaken a project for the protection of embankments of road stretching about 5 km.in the campus of the Indian Institute of Management, Kozhikode, Kerala using coir geotextiles and the treated area was properly vegetated and the degradation of geotextiles and the growth of vegetation monitored regularly.</p> <p>649.70 kg coir yarn was dyed in different shades after realising a service charge of Rs. 2554812.50.</p>	 <p>2. Initiated a Post Graduate Diploma course in Coir Technology at Cochin University of Science And Technology.</p> <p>3. American Standard for Testing Materials Laboratory for testing coir yarn, coir fibre and coir geotextiles.</p>
<p>2002-03</p>	<p>A total of 6432.4 kg COIRRET valued at Rs.160810/- and 8075 kg. pithplus valued Rs.323000/- was sold from the Pilot Scale Laboratory. Tested 237 samples of coir pith earning a revenue of Rs.124000/- Awareness on the potentials of coir pith was generated through Seminar. The facilities for conversion of coir in to nonwoven felt at Central Institute of Coir Technology, Bangalore was extended to the trade and an amount of Rs.52,936/- was realised from the sale of 12,216 sq.mtr. of felt.</p>	<p>6. Demonstrated technology of composting of coir pith to 3000 participants in Kudumbasree Schemes.</p>



YEAR	ACTIVITIES	ACHIEVEMENTS
	<p>A two week training programme in spinning of fine quality thin yarn was imparted to the members of the Vanitha Co-operative Society in Adiyam, Thalayolaparambu, Kerala.</p> <p>Seminar-cum-Demonstration on application of Natural dyes was conducted in collaboration with IIT, New Delhi.</p> <p>156 designs in different colour combinations were evolved for application on coir products and an amount of Rs.6600/- was realised from sale of copies of design cards. 16 designs were published in the Coir News.</p> <p>Technical staff of CCRI underwent two day training at South India Textile Research Association, Coimbatore on testing of light fastness of dyed materials and a 4 day training course on testing of coir geotextiles at IIT, New Delhi.</p> <p>Conducted field demonstrations in composting of coir pith at 10 different places in Kerala.</p> <p>525 MT of green husks fibre bundles were treated with 3150 kg. COIRRET at three selected sites in the Arattupuzha region of Kerala as part of field demonstration for conversion of green husk fibre to fibre of retted quality.</p> <p>Demonstrated the techniques of composting of coir pith into organic manure to over 3000 participants in the Kudumbasree schemes.</p> <p>A total quantity of 486.95 MT of coir yarn was dyed in different shades after realising a service charge of Rs.31,92,123.60. Tested 257 samples of coir products consisting of 106 sets of rubberised coir, 33 samples of curled coir rope, 96 samples of coir yarn/rope, 9 samples of coir geo-textiles and 23 samples of other products as per BIS specification and issued the test reports after realising a service charge of Rs. 80325/- towards testing.</p> <p>41 shade matches were taken and realised Rs. 750/-as service charges.</p>	<p>7. The application of natural dyes on coir was popularised through a seminar cum demonstration in association with IIT, New Delhi.</p>
2003-04	<p>An amount of Rs.1,51,972.50 was realised from sale of 30067.4 m² of coir needled felts of different densities.</p> <p>A total quantity of 40 kg COIRRET valued at Rs. 1600/- and 6242 kg. PITHPLUS valued at Rs. 1,56,050/-was sold from the Pilot Scale Laboratory.</p> <p>Tested 88 samples of coir pith for different parameters and realised Rs.39655/-as service charges.</p> <p>Extended assistance in organising 3 workshops and on the spot site selection for application of coir geo-textiles against soil erosion on the cuttings on the road of National Highways. Technical assistance was extended to KSEB for the application of coir geo-textiles for reinforcement and stabilisation of the road at Kuttiyadi.</p>	

YEAR	ACTIVITIES	ACHIEVEMENTS
	<p>Assessed the suitability of Flurotex FCN, a flame retardant additive provided by Nova Transfers Pvt.Ltd., Mumbai and observed that it is were effective. It was observed that no improvement on the texture of the yarn spun from coir fibre treated with paraffin wax emulsion @5% and 7 % on the weight of the material. Conducted studies on Percoiron as stabilizer for hydrogen peroxide bleaching of coir by hot process, which reduced the quantity of hydrogen peroxide in getting satisfactory brightness.</p> <p>Pigments provided by M/s.Sudarsan Chemicals, Mumbai was used for stencilling on coir mats after diluting with water and binder and assessed at the cost of treatment. A study on the weight losses to coir yarn in wet processing with water/soda ash, bleaching/ dyeing were conducted.</p> <p>61 designs suitable for fibre mats/ mattings were evolved. 16 designs were published in the Coir News. Copies of design cards were supplied to exporters and realised Rs.2400/- as service charges. 12 designs evolved were stencilled on fibre mats using natural dyes. Designed cover pages of Coir News and edited a multi colour brochure on CCRI activities.</p> <p>Conducted 22 field demonstrations in composting of 5 MT each coir pith at different places of Kerala (18) and West Bengal(4). 10 field demonstrations in composting of 640 MT of coir pith were conducted at different places of Kerala;</p> <p>Imparted training to 20 trainees in two batches in manufacture of different types of quality coir mats. Conducted a survey on feasibility for starting coir processing units in West Bengal. Technical assistance was extended to two units in bulk bleaching and dyeing. Conducted a two day workshop cum demonstration on Application of Natural Dyes in association with the IIT, New Delhi at CCRI. Extended assistance in taking classes for students of Post Graduate Diploma in Coir Technology (PGDCT) of Cochin University of Science and Technology (CUSAT) and trainees from Co-Operative Regional Management. Technical guidance were extended to 3 project students from University of Kerala and one student from Calicut Study Centre and 4 students from CUSAT.</p> <p>Tested light fastness of 47 samples of coir fibre/ yarn and 3 samples of jute cotton union fabric and measured the break load of 3 samples of cotton jute union fabric. A total of 133 coir products were tested consisting of 81 sets of rubberised coir, 4 samples of curled coir rope, 11 samples of coir yarn, 4 samples of coir geo-textiles, 14 samples of coir/ sisal yarns for light fastness and 16 shade matches were taken. An amount of Rs.1,00,689/- was realised towards testing charges.</p>	

YEAR	ACTIVITIES	ACHIEVEMENTS
	<p>45 dyestuffs were evaluated for suitability of dyeing to coir. Analysed the break load of one month and three year old Aratory yarn for assessing the life of the yarn. Prepared eco-parameters of coir products, formulated draft standards for coir hard boards/coir ply boards in association with BIS.</p> <p>Two persons were imparted training in dyeing of coir. A total quantity of 723.455 MT of coir yarn was dyed in different shades and realised Rs.35,25622/- as service charges for dyeing . An amount of Rs.45000/- was realised from sale of design of metallic handloom to 9 parties.</p> <p>Imparted training on weaving mesh matting on frame for 18 trainees sponsored by SBI, Alappuzha under the project UPTECH for upgradation of technology of coir artisans.</p> <p>6 candidates deputed by the Govt.of Tripura were imparted training in weaving on semi-mechanised loom.</p>	
<p>2004-05</p>	<p>Measured the light fastness and flexural rigidity of 41 samples of biobleached coir fibre from Indian Association for the Cultivation of Science, Kolkata and issued the reports. Measured the flexural rigidity of 6 samples of blended coir and issued the test reports to SITRA, Coimbatore.</p>  <p style="text-align: center;"> COIR YARN DYED WITH NATURAL DYES COIR YARN DYED WITH SYNTHETIC DYES </p>	<ol style="list-style-type: none"> 1. Evolved shades on coir using vegetable dyes. 2. Seven Project students were guided in conducting projects.

YEAR	ACTIVITIES	ACHIEVEMENTS
	<ol style="list-style-type: none"> 1) Tested 19 sets of Rubberised coir and issued the reports to Bureau of Indian Standards. 2) Measured the breaking load of 20 samples of blends of coir/sisal spun on motorized traditional ratt. 3) Measured the pH of aqueous extract of 15 samples of blends of coir/sisal dyed with basic, acid and direct dyes. 60 new designs were made and 32 designs published in Coir News. 4) Measured the salt content of a coir geotextile. 5) Prepared 30 blow ups and exhibited in the CCRI Pavilion during the Golden Jubilee Celebrations. 6) Quality parameters of rubber moulded PVC tufted coir mat and knotted net from polynet were measured. 7) 68 shades were taken on bleached Anjengo coir yarn using vegetable dyes extracted from 18 plants, which are locally available. 8) Stenciled mats were made using natural dyes extracted from plants. 9) 258 samples of jute/coir products were tested for light fastness. 10) 223 samples of coir yarn were tested for break load. 11) 10 shade matching were taken and realised Rs.1080/- as service charge. 12) Break load of a geotextile sample was measured. 13) Bulk bleaching was carried out Percoiron H₂O₂ Stabilizer and its light fastness was measured. 14) Studies were conducted to bleach and dye yarn spun from green husk fibre with and without soaking and break load and colour fastness to light was measured. Sample products were also made. 15) Studies were conducted by using natural colours extracted from Coffee, Tea, Teak leaves, Pomegranate seeds, Cinnamon and coir pith to produce different novel designs of mats. 16) Imparted training in dyeing for entrepreneurs. 17) Testing of fibre- one sample Testing of the different characteristics such as modified direct shear, AOS, CBR, puncture resistance of coir geotextiles was carried out. Assessed the suitability of 3 chemicals for dyeing, bleaching and softening. 	

YEAR	ACTIVITIES	ACHIEVEMENTS
	<p>The performance report of the CCRI on research activities for the past 50 years was prepared for forwarding to the Ministry of ARI.</p> <p>Action for setting up of a testing lab on RHP lines at CCRI was initiated by processing the tender for procurement of the equipments.</p> <p>An amount of Rs.126423/- was realised from the service charges towards testing of coir and coir materials.</p> <p>A coir pith testing laboratory was set up at CICT and the equipments for testing coir pith were installed. The institute is ready now for testing of the coir pith. Tested 37sets of Rubberised coir and issued the reports to Bureau of Indian Standards and an amount of Rs.26118/- realized as service charges.</p> <p>Project students were guided in undertaking the projects in the following areas.</p> <ol style="list-style-type: none"> 1. "Extraction of Plant Dyes and their application on Coir"- March 05 submitted to University of Kerala as a part of M.Sc., Chemistry. 2. "Extraction of Natural Dyes and Evaluation of their Dyeing Characteristics on Coir" March 05 submitted to University of Kerala as a part of M.Sc., Chemistry. 3. "Extraction of Natural Dyes from Plant Parts and its Application of Coir"- March 05 submitted to University of Kerala as a part of M.Sc., Chemistry. 4. "Population Dynamics, Intensity of Damage & Management of Coreid Bug"-March 05 submitted to KAU, Vellayani as a part of Ph.D. 5. "Banana Fibre Extraction and Utilisation"- March 05 submitted to KAU, Mannuthy as a part of M.Sc., Horticulture. 6. "Use of Polymer Coating for Improvement of the Durability of Natural geotextiles- December 04 submitted to Cochin University of Science & Technology as a part of M.Tech. 7. "Standardisation of Coir geotextiles"-March 05 submitted to College of Engineering, Trivandrum, University of Kerala as a part of M.Tech. <p>A total quantity of 691135 Kg coir yarn was processed in different shades. An amount of Rs.25,91,705.90/- realized as service charges during this period.</p>	

YEAR	ACTIVITIES	ACHIEVEMENTS
	<p>26 PITHPLUS demonstrations for composting of coir pith into organic manure were conducted during the year 2004-05. 10 bulk demonstrations were conducted using PVC perforated pipes, and a quantity of 500MT coir pith composted with this technology. Another 16 sample demonstrations were also conducted for the conversion of 141.6MT coir pith into organic manure. A total quantity of 641.6MT coir pith was composted by using 3208 packets of PITHPLUS from the Pilot Scale Lab at CCRI. Besides, a technical team proceeded to conduct the field demonstrations of PITHPLUS with PVC pipes to the different states such as Tamil Nadu, Karnataka and Andhra Pradesh coming under the 3 Regional Offices of the Coir Board. The ESO from CCRI has proceeded to the other coconut growing districts in Bhubaneswar, Pollachi, Vizakhapatnam and Bangalore to explore the possibility of starting new coir units. The ESO has also been deputed to Bombay twice during the year for the participation in the exhibition organized by ITPO and Pravasi Bharathiya Divas Exhibition. Extension wing staff developed two models of the COCOLAWN suitable for the Golf grounds in the Cochin Golf Club by using coir geotextiles and composted coir pith. Technical staff from the extension wing of CCRI have been deputed to TCPC, Agartala for 2 months each during the reporting period to impart training in spinning coir yarn on motorized ratt. The technical staff of the extension wing were also deputed along with the internal audit team for conducting internal audit in the Showrooms, Sub Offices and CMS inspection.</p> <p>One demonstration was conducted to display the use of coir geotextiles to protect reservoirs at the Forest Research Institute, Gwalior in Madhya Pradesh State. 125Sq.Mtr. of COCOLAWN was developed using coir geotextile, composted coir pith and raw coir pith. Technical information and guidance was extended to the entrepreneurs and other study teams visiting CCRI.</p> <p>In CICT, conversion of coir fibre to coir non-woven felt is one of the services being extended to the entrepreneurs and a total quantity of 10818 Sq.mtrs. (Various density) of needled felt is dispatched to different parties.</p> <p>During the year the total amount of Rs. 1,66,742/- realized as service charges for extension service facilities at CICT.</p>	