



CPCRI News



Views and News on Advances in Coconut, Arecanut and Cocoa



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DDG (Hort.) reviews root (wilt) research

Dr. H.P. Singh, Deputy Director General (Horticulture) visited the Regional Station, Kayamkulam on 08-05-2011 and reviewed the ongoing research programmes on coconut root (wilt) disease. He visited the experimental fields/ facilities for insect transmission, challenge inoculation and induced systemic resistance. He emphasized the need to erect a larger insect-proof net house (100 m²) for transmission studies. He outlined the need to develop a complete package on conventional breeding strategies related to development of pure lines and early flower induction for reducing the breeding cycle in coconut. He



Dr. H.P. Singh, DDG (Hort.) interacting with scientists during field visit

emphasized that soil health management and production system management in coconut with special emphasis on root (wilt) disease management should receive greater attention. He stressed the

importance of working in team approach mode in synergy to address complex problems like root (wilt) disease.

Nursery Accreditation Committee visits Kayamkulam

The team constituted by the National Horticultural Board (NHB) visited coconut nursery at CPCRI Regional Station, Kayamkulam on 08-06-2011 to assess and grade the nursery under the scheme on accreditation of horticultural nurseries. The team headed by Dr. Shyam Singh, formerly Director, NRC Citrus, Nagpur inspected the nursery beds, infrastructure facilities and mother palms for the production of quality planting materials in coconut for the root (wilt) endemic areas.



Nursery accreditation committee visiting the nursery

DDG (Hort.) visits Research Centre, Kahikuchi

Dr. H.P. Singh, DDG (Hort.) visited Research Centre, Kahikuchi on 07-05-2011. DDG (Hort.) highlighted the need for disease diagnostic laboratory and



INSTITUTIONAL NEWS



Visit of DDG (Hort.) to RC, Kahikuchi

production of quality planting material of local black pepper at the Centre. He visited the experimental fields and reviewed the ongoing research programmes at the Centre.

Bioinformatics training

Agribioinformatics Promotion Centre conducted a national training programme on 'Bioinformatics Tools and Applications for Data Analysis and Development of Database' from 26th April to 5th May 2011 at Kasaragod. Ten participants from different institutes and Universities attended the training program. The training program covered the programming tools like Perl and Python and its important modules for biological researches, Bioperl,



Participants of the training with Dr. George V. Thomas, Director and resource persons

Biopython database concepts and database development using MS Access, important bioinformatics tools and statistical analyses.

RESEARCH HIGHLIGHTS

Screening for cold tolerance in coconut

Traditionally coconut is cultivated in the tropical and sub-tropical regions of India. Of late it has been introduced in a large scale in non-traditional regions like Assam, Bihar, Tripura, Manipur etc., where low temperature prevails during winter season. The yield of coconut is generally poor in such non-traditional regions, their genetic stock being derived largely through introductions from tropical regions like Kerala and neighboring states where there is no severe winter season. Therefore, an experiment was initiated to screen the coconut varieties for cold tolerance based on germination, survival and seedling growth characteristics during winter season.

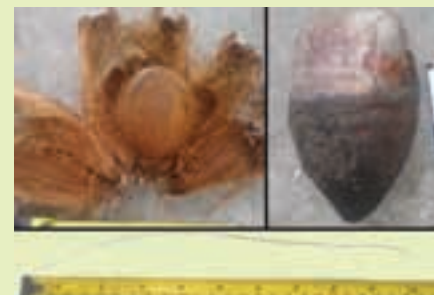
A total of 18 palms were selected for the study from Jalpaiguri district where low temperature prevails during winter season and mature seed nuts were collected and stored for 20 - 25 days at room temperature before sowing. Preliminary observations during the last two years (2009-10 and 2010-11) indicate that Mohitnagar III has maximum germination percentage, seedling survival and growth characteristics during winter months.

Enriching coconut germplasm with unique traits

Southern districts of Kerala were explored with the help of local Krishi Bhavans and four coconut ecotypes with superior quality fibre were identified. One such ecotype was long-fruited, with long fibres and one and a half times more fibre

than other types. The fibre is 30 cm in length and better suited for coir industry, the mainstay of coastal districts of Kerala.

Another ecotype having large fruits with good endosperm content and high copra out turn of 200 - 250 g per nut and 70% oil content was also collected.



A coconut ecotype with long fibre

Chemical control of red palm weevil

Five insecticides viz., imidacloprid (0.02%), spinosad

(0.013%), indoxacarb (0.04%), carbaryl (1%) and a combination pesticide of chlorpyrifos and cypermethrin (0.1%) were evaluated for curative management of red palm weevil in the field. Imidacloprid (0.02%) treated palms evinced highest recovery (79.1%) in the field followed by palms treated with chlorpyrifos and cypermethrin (66%), indoxacarb (63.8%), spinosad (60.5%) and carbaryl (60%).

Root (wilt) disease of coconut in Colachel region of Kanyakumari

A survey conducted by a team of scientists from CPCRI RS, Kayamkulam revealed incidence of root (wilt) disease in coconut

plantations in Colachel and adjoining areas (Neyoor, Karingal, Nattalam) in Kanyakumari district of Tamil Nadu. The disease in different stages

early, middle and disease advanced state and leaf rot infection could be recorded in several plantations in the region and the disease appears to be spreading to newer areas. Disease incidence has been noticed on young seedlings also and a



Root (wilt) affected and leaf rot affected coconut palms in Colachel

of affected gardens is observed by the farmers. Soil and plant samples have been collected from disease affected gardens for laboratory analysis. The plant hopper (*Proutista moesta*) could also be collected from some diseased seedlings.

HUMAN RESOURCES DEVELOPMENT

Deputation Abroad

Dr. George V. Thomas, Director and Dr. R. Manimekalai, Sr. Scientist (Biotechnology) attended APCC/MCD/CRI Consultative Meeting on Phytoplasma/ Wilt Diseases in Coconut held at the Coconut Research Institute (CRI) in Sri Lanka during 15-17 June 2011. Besides the technical sessions, field visit to the diseased areas were also organized. During the meeting Dr. George V. Thomas, Director presented "Practical strategies and good agricultural practices in the control, management and containment of the disease" during the session on Weligama and Kerala wilt disease in coconut. Dr. R. Manimekalai presented the topic "The Nature of the coconut root (wilt) Disease: Review of the R & D Programme and Accomplishments".

Dr. K.B. Hebbar, Head, Plant Physiology, Biochemistry & Post

Harvest Technology underwent a training program under the Global Research Alliance and Norman E. Borlaug International Agricultural Science and Technology Fellowship Program under Dr. P.V. Varaprasad, Assoc. Professor, Crop Eco-physiology & Director Sorghum Scheme, Throckmorton Plant Science Center, Kansas State University, Manhattan, KS, from 1st February to 19th April, 2011. Under this fellowship he has learnt the *in vitro* pollen germination technique for screening the crop plants for high temperature tolerance and the use of an ethylene inhibitor, 1-methyl cyclopropene (1-MCP) to improve the shelf life of perishable products. He also visited some of the advanced laboratories working on climate change in Kansas State University and Oklahoma State University and met experts in the field. As part of the program he also attended few workshops and seminars.

Dr. V. Niral, Senior Scientist (Genetics) and Dr. M.K. Rajesh, Senior Scientist (Biotechnology) underwent training in the area of



Dr. Gary Pierzynski, Dean and Director, College of Agriculture, Kansas State University presenting Borlaug Fellowship Certificate to Dr. K.B. Hebbar

marker-assisted selection at Iowa State University, Ames, USA from 22-3-2011 to 21-6-2011 under the HRD program of NAIP.

Dr. Murali Gopal, Senior Scientist (Microbiology) participated in the 4th Congress of

European Microbiologists (FEMS 2011) held at Geneva, Switzerland during 26-30 June 2011. He also

presented a research paper entitled "Study of bacterial community dynamics during coconut leaf

vermicompost production and in earthworm gut contents using pyrosequencing".

Trainings within India

Name of the Official	Programme	Place and duration
Dr. P. Anithakumari, Sr. Scientist (Agri. Extn.)	Data mining techniques and GIS applications in Agriculture	IIM, Lucknow 25-03-2011 to 08-04-2011
Shri S. Thajudin, Technical Officer	Design and development of digital libraries using Dspace	NISCAIR, New Delhi 06-06-2011 to 10-06-2011
Shri Sivakumar, SMS (Entomology)	Technology & innovation for rural development	LBS National Academy of Administration, Mussoorie 20-6-2011 to 30-6-2011
Shri Nagaraja, N. R.	International training on molecular markers in	IIHR, Bangalore

SEMINARS/ SYMPOSIA/ CONFERENCES/ WORKSHOPS ATTENDED

Name of the Official	Programme	Place and duration
Dr. R. Manimekalai, Sr. Scientist (Biotech.)	National consultation on diagnostics and workshop in dip stick techniques	CPRI Shimla 15-4-11 to 20-4-11
Dr. R.V. Nair, Dr. R. Chandramohan, Dr. R. Dhanapal, Dr. K. Muralidharan, Dr. K.B. Hebbar, Heads of Div., Dr. D. Balasimha, Dr. P.M. Jacob, Heads of RSs, Dr. K.S. Ananda, Dr. G.C. Acharya, Dr. Arun Kumar Sit, Scientists-in-charge of RCs	Workshop-cum-Meeting of Heads of Divisions/ Regional Stations of ICAR Institutes convened by DG, ICAR	Bhopal 14-6-2011 to 15-6-2011
Dr. H.P. Maheswarappa, Principal Sci. (Agronomy)	Towards more effective role of Project Directors/ Project Coordinators	Bhopal 16-6-2011
Dr. Chandrika Mohan, Senior Scientist	National Symposium on harnessing biodiversity for biological control of crop pests	NBAIL, Bangalore 25-05-2011 to 26-05-2011
Dr. Chandrika Mohan, Senior Scientist	XX AICRP Workshop on biocontrol of crop pests and weeds	NBAIL, Bangalore 27-05-2011 to 28-05-2011
Dr. G.C. Acharya, Sr. Scientist (Hort.)	National Conference on Hort-business- linking farmers with market	Dehradun, Uttarakhand 28-05-2011 to 31-05-2011
Dr. Chandrika Mohan, A. Joseph Rajkumar, Senior Scientists	Sensitization Workshop on approved use of pesticides	NIPHM, Hyderabad 18-06-2011
Dr. V.H. Pratibha and Dr. S. Sarath Babu, Scientists	Orientation Programme on approved use of pesticides	NIPHM, Hyderabad 20-6-2011
Dr. G.C. Acharya, Sr. Scientist (Hort.)	Regional Conference on Coconut cultivation and value addition	Agartala, Tripura 24-06-2011
Dr. R. Manimekalai Sr. Scientist (Biotech.)	Brainstorming session on bioinformatics and genomics	IISR Calicut 26-06-2011 to 27-06-2011

Research paper

- Ambilikutty Amma, P. and Chandramohan, R. 2011. Cocoa sweating, a promising culture medium for mass production of fungal bioagents. *J. Plantation Crops* **39**: 92-98.
- Anithakumari, P, Rajeev, M.S. and Jissy George. 2011. Improving income from coconut cultivation through farm level value addition analysis. *J. Plantation Crops* **39**(1):131-136.
- Balasimha, D. 2011. Biomass productivity, carbon stocks and carbon sequestration of cocoa in relation to planting density and canopy regimes. *J. Plantation Crops* **39**(1):174-176.
- Balasimha, D. 2011. Chlorophyll fluorescence, stomatal conductance and yield of cashew germplasm from three agro-climatic regions of South India. *J. Plantation Crops* **39**(1): 232-235.
- Balasimha, D. 2011. Photosynthetic characteristics in cashew germplasm. *J. Plantation Crops* **39**(1): 210-212.
- Devakumar, K., Regi J. Thomas, R.V. Nair, B. A. Jerard, M.K. Rajesh, Jacob, P.M. Jayadev, K., Parthasarathy, V.A. 2011. Analysis of population structure and genetic relatedness among root (wilt) disease resistant and susceptible West Coast Tall coconut palms (*Cocos nucifera* L.) using microsatellite markers. *Indian. J. Agri. Sci.* **81**(6): 487-93.
- Elain Apshara, S. and Nair, R. V. 2011. Genetic analysis in cocoa collections obtained from Nigeria. *J. Plantation Crops* **39**(1):153-156.
- Hussain, M., Ray, A. K., Maheswarappa, H. P., Subramanian, P., Ravi Bhat, Krishnakumar, V and Acharya, G.C. 2011. Sustainable productivity and economics of arecanut based high density multi-species cropping system under Brahmaputra valley region. *J. Plantation Crops* **39**(1): 68-72.
- Josephrajakumar, A., Rajan, P., Chandrika Mohan and Krishnakumar, V. 2011. Report on the palm aphid, *Cerataphis brasiliensis* on 'Kalparaksha' coconut cultivar. *Phytoparasitica* DOI: 10.1007/s12600-011-0174-4.
- Krishnakumar, V., Maheswarappa, H. P., Jayasekhar, S. and Shanavas, M. 2011. Economic evaluation of high density multispecies cropping system in root (wilt) disease affected coconut (*Cocos nucifera*) areas in Kerala. *J. Plantation Crops* **39**(1):125-130.
- Litty Thomas, Alka Gupta, Murali Gopal, Priya George and George V. Thomas. 2011. Efficacy of rhizosphere *Bacillus* spp. for growth promotion in *Theobroma cacao* L. seedlings. *J. Plantation Crops*, **39**(1):19-25.
- Maheswarappa, H.P., George V. Thomas, Ravi Bhat, Palaniswami, C. and Jayasekhar, S. 2011. Impact of inorganic fertilizer substitutions by vermicomposted coconut leaves on productivity and economics of coconut. *J. Plantation Crops* **39**(1) 30-34.
- Ravi Bhat and Krishnakumar, V. 2011. Influence of planting material and nutrients on herbage and oil yield of patchouli grown as intercrop in coconut garden. *J. Plantation Crops* **39**(1):57-61.
- Sneha Soman and Chandrika Mohan. 2011. Compatibility of *Metarhizium anisopliae* (Metsch.) Sorokin with some chemical and botanical pesticides used in coconut pest management. *J. Plantation Crops*. **39**(1):196-200.
- Srinivasan, N., Bharathi, R., Shanty Issak and Rajeev, G. 2011. Field management of coconut leaf rot disease with biological control agents, their bioformulation and viability in organics. *J. Plantation Crops* **39**(1) 99-104.
- Srinivasan, N., Chandramohan, R., Bharathi, R., Radhika, N.S. and Shanty Issak. 2011. Development of technology and popularization of biological control agents for integrated management of coconut leaf rot disease. *CORD* **27**(1): 48-60.
- Subaharan, K., Ravi Kumar, N. and Prasad, A.R. 2011. Electrophysiological and behavioural response of *Goniozus nephantidis* Muesbeck, to plant and host volatiles. *J. Plantation Crops*, **39**: 78-85.

Papers presented in Conferences

- Chandrika Mohan 2011. Host conditions for optimum parasitic potential of *Apanteles taragamae*, a parasitoid of coconut leaf eating caterpillar. Paper presented in *Harnessing biodiversity for biological control of crop pests*, May 25-26, 2011, NBAII, Bangalore.
- George V. Thomas, Alka Gupta, Murali Gopal, R. ChandraMohan, Priya George and Litty Thomas. 2011. Profiling of PGPRs based on biochemical, BIOLOG and 16S rDNA approaches and biopriming effects of superior strains on coconut and cocoa seedlings. Presented in the 5th Annual Review Meeting of ICAR Network Project on AMAAS, 14-15 May, 2011, NBAIM, Mau, U.P.
- George V. Thomas, Alka Gupta, Murali Gopal, R. ChandraMohan, K. Ambili and P. Indu. 2011. Studies on arbuscular mycorrhizae and other beneficial microorganisms in coconut and arecanut based cropping systems. Presented in the 5th Annual Review Meeting of ICAR Network Project on AMAAS, 14-15 May, 2011, NBAIM, Mau, U.P.
- Murali Gopal, Kamlesh Jangid, Alka Gupta, William B. Whitman, S.R. Prabhu and George V. Thomas. 2011. Study of bacterial community dynamics during coconut leaf vermicompost production and in earthworm gut contents using pyrosequencing. Abstract No. 231, 4th Congress of European Microbiologists, June 26-30, 2011, pp. 201. Book of Abstracts.

Popular articles

- Anithakumari, P. and Lekha, G. 2011. Gender participation and training need analysis in coconut cultivation. *Indian Coconut J.* **44**(1): 23-29.
- Jaganathan, D. and Yadukumar, N.

2011. *Kadal Kadannu Pala Patrangal* (Malayalam). *Kerala Karshakan*, **56** (12):31-32.
- Jissy George. 2011. Jack tree An earning tree. *Karshakan*, June 2011 (in Malayalam).
- Lekha, G. 2011. Milky mushroom for food and profit. *Karshakan*, June 2011 (in Malayalam).
- Lekha, G. 2011. Organic amaranthus for homesteads. *Harithabhoomi*, April 2011 (in Malayalam).
- Maheswarappa, H.P., Harish, C.B. and Subramanian, P. 2011. Gliricidia for improving productivity in coconut. *Prajavani*, 2nd June 2011, Karavali. P.4.
- Murali Gopal, Alka Gupta and George V. Thomas. 2011. Coconut leaf vermicompost production technology. *Cocoinfo International* **18**(1):39-40.
- Nair, C.P.R., Rajan, P. and Namboothiri, C.G.N. 2011. Adoption of integrated pest management strategies for sustainable production in coconut. *Indian Coconut J.* **53** (12): 11-17.
- Subramanian, P., Dhanapal, R., Palaniswami, C., Alka Gupta and Maheswarappa. H.P. 2011. Agrotechniques for higher coconut productivity under coastal sandy soil. *Indian Coconut J.* **53** (11):7-15.
- Book chapter**
- Acharya, G.C., Ranjana Chakrabarty and George V. Thomas. 2011. Scope of cultivation of major plantation crops in Nagaland, India. In the book "Compendium of status papers: Interface meeting for development of agriculture and allied sectors of Nagaland": Department of Agriculture, Horticulture, Animal Husbandry and Fishery, Govt of Nagaland and ICAR institutes, DARE/ IACR, Govt. of India. pp-25-27.
- Book and chapters**
- Elain Apshara, S., Jaganathan, D. and Balasimha, D. 2011. *Proceedings of seminar on Strategies for Enhancing Productivity of Cocoa, 28-29 January 2011, CPCRI Regional Station, Vittal, Karnataka, 196p.*
- Alagar, M. and Subaharan, K. Management of tea mosquito bug for enhancing the productivity of cocoa. pp. 128-134.
- Ambilikutty Amma, P. and Chandramohan, R. Production technology of mycological culture medium using cocoa bean shell. pp. 141-149.
- Anitha Karun and Bhavyashree, U. *In vitro* multiplication of cocoa. pp. 37-41.
- Balasimha, D. Carbon sequestration potential in cocoa plantations. pp. 111-115.
- Bhavyashree, U., Radha, E. and Anitha Karun. Histological studies on callogenesis of cocoa. pp. 46-48.
- Bhavyashree, U., Sajini, K.K. and Anitha Karun. Effect of culture media and explants on callogenesis of cocoa. pp. 42-45.
- Elain Apshara, S. and Rajesh, M.K. Biotechnological strategies for improvement of cocoa. pp. 56-60.
- Elain Apshara, S. Nursery studies in cocoa. pp. 29-36.
- Elain Apshara, S. Women in cocoa sector. pp. 193-196.
- Elain Apshara, S., Ananda, K.S. and Nair, R.V. Diversity conservation and utilization strategies in improvement of cocoa. pp. 1-9.
- Jaganathan, D., Jose, C.T. and Thamban, C. Transfer of technology programmes of CPCRI for cocoa development. pp. 183-186.
- Jayasekhar, S., Radhika, C., Thamban, C. and Muralidharan, K. Tracing the economic history of cocoa development in India: Myths and realities. pp. 158-161.
- Jose, C.T., Jaganathan, D. and Muralidharan, K. Yield variability pattern in cocoa. pp. 162-164.
- Kalavathi, S. and Elain Apshara, S. Performance of grafted cocoa clones in frontline demonstration plots and farmer's perceptions on the impact of scientific management. pp. 177-182.
- Keshava Bhat, S. Rodent pest management in cocoa Principles and Practices. pp. 135-138.
- Murali Gopal, Litty Thomas, Alka Gupta, Priya George and George V. Thomas. Plant growth promoting Rhizobacteria (PGPR) for growth improvement in cocoa. pp. 106-110.
- Naganeeswaran, S. and Elain Apshara, S. Analysis of drought induced expressed sequence tags (EST's) library and identification of metabolic pathways in cocoa. pp. 69-73.
- Nilosha, Bhavyashree, U., Sajini, K.K. and Anitha Karun. Cryopreservation of cocoa shoot tips using pre growth desiccation protocol. pp. 49-55.
- Nithya, S. Rajesh, M.K. and George V. Thomas. Assignment of function and homology modelling of SERK and LEC proteins in cocoa. pp. 61-65.
- Patil, D.V., Elain Apshara, S., Ananda, K.S. and Nair, R.V. Performance of elite cocoa clones under coconut canopy. pp. 26-28.
- Prabha K. Peter and Chandramohan, R. State of art of Phytophthora diseases of cocoa in India. pp. 119-124.
- Radhika, C. Jayasekhar, S. Muralidharan, K. and Amarnath, C.H. Spatial price integration of regional cocoa markets in India and with world market: A co-integration approach. pp. 165-170.
- Ravi Bhat and Sujatha, S. Nutrient uptake pattern in cocoa. pp. 86-88.
- Sairam, G.L., Rajesh, M.K. and George V. Thomas. Comparison of k-nn and svm in classification of proteins induced during somatic embryogenesis in cocoa. pp. 66-68.
- Sharadraj, K.M. and Chandramohan, R. Zinc deficiency a major problem in cocoa growing areas of Andhra Pradesh and Tamil Nadu. pp. 139-140.
- Sujatha, S. and Ravi Bhat. Cost-benefit analysis of drip irrigation in cocoa as mixed crop in arecanut plantation. pp. 89-91.
- Extension folder**
- Coconut based cropping systems for the management of root (wilt) disease (Malayalam) Folder No.199.

TRANSFER OF TECHNOLOGY

KASARAGOD

Training

During this period, two training programmes were arranged at Kasaragod; one training on "Coconut processing and value addition", sponsored by IICPT,



Dr. R. Chandramohanam, Head, Crop Protection, inaugurating the training on "coconut processing and value addition"

Thanjavur for 80 farmers on 19.04.2011 and the other one on Scientific cultivation technologies for coconut on 23rd & 24th June 2011 for 11 farmers from Mahe.

Video conferencing

A mobile video conferencing system the state-of-the-art technology has recently been procured for the Institute. By using this system, five video conferences were conducted with farmers, State Agricultural Officers, KVK Staff. of Malappuram, Alappuzha, and Thiruvananthapuram districts at client end and scientists of CPCRI Kasaragod at the host end.

On 02-05-2011, 45 farmers of Kuttippuram, Malappuram Dt. used the interacted with scientists at



Farmers of Kuttippuram, Malappuram district, interacting with scientists of CPCRI, Kasaragod

Kasaragod through the mobile system on the scientific cultivation practices for coconut. On 3rd June 2011, an interaction between six entrepreneurs under NAIP on Value chain in coconut at Kasaragod and four successful entrepreneurs of KVK, Kayangulam was arranged, which served as a platform for sharing their experiences on coconut value addition.

A cyber extension programme on 'Enriching institutional capacities' was held on 7-6-2011 with mutual interaction of staff of KVK. Mitra Niketan, Thiruvananthapuram and scientists of CPCRI Kasaragod on 7-6-2011. On the same day, another video conferencing with Agricultural Officers of Thiruvananthapuram district was arranged in which natural resource management in littoral soil was discussed in detail.

On the forenoon of 9-6-2011 a skill imparting training on 'Farm level production and use of *Metarhizium*' was organized for the benefit of farmers of Kasaragod



Director and experts from Kasaragod interacting with development officials in Nedumangad

district by the experienced farmers group of Edava. On the same day, an in-depth discussion between scientists of CPCRI, Kasaragod and State Agricultural Officers of

Alappuzha on 'Management of coastal sandy loam soil' was also facilitated through this new initiative.

Visitors

A total number of 738 persons comprising 209 students, 477 farmers, 34 extension workers and 18 others visited this Institute to acquire knowledge on the research activities of this Institute and purchase of inputs such as seedlings, vermicompost etc.

Exhibitions

The Institute has participated in the exhibition conducted during the third Annual Conference of Lt. Amit Singh Foundation held at Dehradun during 28-31 May 2011.

Resource generation

During this period, the total sales of inputs such as coconut seedlings, vermi compost, publications and CDs from ATIC amounted to Rs.3,63,132/-.

FPARP phase II launched

Farmer Participatory Action Research Programme on Water Conservation in Coconut and Arecanut Gardens in Kasaragod district Phase II was initiated for enlightening the farmers on the importance of conservation of soil and water in the farmer's field. The launching of this programme was held on 06-06-2011 at Kinanur-



VIPs visiting the CPCRI stall at Dehradun, on the eve of National Conference on Hort-business - Linking Farmers with Market



Sri K. Lakshmanan inaugurating the launching of water conservation programme at Karindalam

Karinthalam Panchayath which was inaugurated by Sri K. Lakshmanan, the Panchayath President in the presence of Director and scientists of CPCRI and Assistant Director and Staff of State Agriculture Department on. After the inauguration a session was held in which Dr. K. Muralidharan, Dr. C. Thamban and Dr. A.C. Mathew explained about the importance of the project, need for initiative and involvement of farmers and the methods for soil conservation that can be easily practiced by the farmers.

KAYAMKULAM

Training Programme

A group of 20 officers from the Department of Horticulture, Sivaganga District of Tamil Nadu attended a one day training programme on management of coconut on 04-05-11.

A group of 24 farmers along with 4 officers from Edathua, Thalavady, Nedumudy and Chambakkulam underwent training on scientific management of coconut with special reference to red palm weevil control on 25-04-11. Seven farmers of All Nagaland Coconut Growers association, Dimapur, Nagaland attended a one day training programme on management of coconut on 30-04-11. Forty nine farmers of Senior Citizens Forum, Changanassery Chapter were appraised of the Institute activities

on 25-05-11. A one-day training on 'Scientific management of coconut' was imparted to 61 farmers along with 5 officers from Neyyattinkara Block under ATMA programme on 24-06-11. A group of 49 Anganwadi workers from Alappuzha district was oriented to Institute activities on 27-06-11.

Interactive sessions and skill upgradation programmes were organized at Cherunniyur panchayath, Trivandrum district for 43 farmers on 27-6-11 on "Farm level multiplication of *Metarhizium* fungus and *Trichoderma*" with the master farmers as trainers. One day training on utilization of organic components of coconut palm for mushroom cultivation was conducted on Edava panchayath along with exhibition of various mushroom products and hands-on session on using various substrates for mushroom cultivation.

VITTAL

Training programmes

A total of 227 farmers and students visited the Regional Station and had exposure to various research and extension activities. Seedlings of arecanut and grafts of cocoa were supplied to the farmers.

MINICOY

For disseminating the technologies developed by the



Inaugural planting of plantain for FLD on coconut based cropping system

Centre, action has been initiated to start front line demonstrations in selected farmers' plots in Minicoy and other islands. Smt. Amina Alibebege, Chairperson, Minicoy Panchayat inaugurated the first "Frontline demonstration on "Coconut based cropping system under the island conditions" by planting banana (Palayankodan variety) in the plot of Sri. Mohammed Kambrufandathige, Bada Village, South Pandaram on 26-6-2011.

A Training programme on "Popularizing vermicompost of coconut leaves under island conditions" was organized on 26-6-2011.

A total of 60 selected farmers including village moopans attended the programme, which was inaugurated by the Panchayat Chairperson. Seedlings of papaya, annual moringa and brinjal were distributed to the participants.

The cultivation of vegetables, fruit crops such as papaya and banana has been intensified as decided during the visit of the high level team consisting of the Secretary, ICAR, DDG(Hort.) and Dr. George V. Thomas, Director, CPCRI on 28th & 29th March, 2011.



Training programme on "Popularizing vermicompost of coconut leaves under island conditions"

MOHITNAGAR

Training

An on farm training programme was organized on 17-05-2011 at this centre on "Crop diversification in plantation garden with spices (black pepper). A total of 30 small tea growers participated in this training programme

TV and Radio programme

A total of six programmes on different technologies on Integrated nutrient management, planting methods and integrated disease management of plantation

crops and black pepper was recorded by ETV Annadata and telecasted during this quarter.

Dr. Arun Kumar Sit, Senior Scientist (Hort) of this centre participated in the live-phone-in programme on "Management of multistoried cropping system of plantation crops" on 23-06-2011 at AIR, Siliguri.

KAHIKUCHI

A District level seminar on "New dimensions for enhancing production, productivity and quality of seed spices in North Eastern States"-organized jointly

by NRC, Seed Spices and CPCRI, RC, Kahikuchi and sponsored by DASD, Calicut under National Horticulture Mission during 3rd and 4th May 2011. About 95 participants consisting of KVK personnel, staff members from AAU, NGOs, farmers and farm women attended the workshop.

Nine on and off-campus training programmes were organized on different aspects of plantation crops during the period benefitting farmers, farm women, SHGs, unemployed youth and panchayat members.

KRISHI VIGYAN KENDRA, KASARAGOD

Krishiyidam

An innovative extension approach

KVK, Kasaragod in collaboration with Kasaragod Vision Channel has launched a television documentary serial, "Krishiyidam" with the intention of bringing to limelight successful farmers and agricultural entrepreneurs through television media, thereby popularizing their respective farming practices and enterprises. The programme was formally launched on 26th of April, 2011 with Sri. M. R. Ajayan, the Managing Director, Kasaragod Vision, handing over the CD containing an abstract version of a

the episodes to the Director, CPCRI, Kasaragod. The programme of 30 minutes duration is being telecast every Sunday at 5.30 PM through Kasaragod Vision Channel.

Agro-Clinic

Monthly Agro Clinics were conducted in various panchayats of Kasaragod district. The programme was inaugurated on 5th of May, 2011 by the Director of CPCRI, Dr. George V. Thomas. So far, two agro-clinics have been conducted, one at Muliya and another at Badiyadka. The Agricultural officers of the respective localities also joined hands in organizing the programme.



Dr. George V. Thomas, Director, addressing the farmers during the monthly interface programme



Plant protection pamphlets released during agro-clinic at Muliya

Interface meetings

The Farmers' Monthly Interface series under KVK-NABARD partnership was inaugurated on 26th of April, 2011 by Sri. N. Gopalan, AGM, NABARD. Twelve interfaces are scheduled on a monthly basis from April, 2011 to March, 2012. During each monthly interface an innovative farmer shares his innovation with fellow farmers. During April, 2011, Shri Divakaran Nambiar, a veteran dairy farmer presented "Improved dairy management practices". During May, 2011 "Farm mechanisation" was addressed and a prototype of a remote controller operated coconut climbing robot was demonstrated by Shri Prakashan Tattari. Shri Simon George exhibited his high rocker sprayer, poly bag filling devices, pot movers, cow tail wagging defending devices, etc. during June, 2011. Every interface included sessions on "Farmer-friendly

services by NABARD" handled by Sri. Gopalan, AGM, NABARD and



Shri Prakashan Tattari demonstrating robotic coconut climber

"Agricultural Credit Facilities" by Sri. Ajithkumar Menon, LDM, Syndicate Bank. ag filling devices, pot movers, cow tail wagging defending devices, etc. during June, 2011. Every interface included sessions on "Farmer-friendly services by NABARD" handled by Sri. Gopalan, AGM, NABARD and "Agricultural Credit Facilities" by Sri. Ajithkumar Menon, LDM, Syndicate Bank.

Participatory seed production

Participatory Seed Production programme in association with

NABARD and CRD, Nileshwar was inaugurated at KVK on 18th May, 2011 by Dr. George V. Thomas, Director, CPCRI. The programme is being implemented with the participation of the Watershed Committees of Kasaragod to which quality seed/ planting material and further advice on management practices were provided. The programme aims at enhancing the food security of Kasaragod district through production of quality vegetable seed production and thereby attaining self sufficiency in vegetable production.

KRISHI VIGYAN KENDRA, ALLEPPEY

Group meeting

A group meeting was conducted to initiate the Frontline demonstration on leaf rot management in coconut at Devikulangara Panchayath on 2nd June 2011. The meeting was inaugurated by Sri. Danesh Krishna, Standing Committee Chairman, Devikulangara Panchayath. The Programme Coordinator of KVK, Alleppey explained the content of demonstration and emphasized the need for timely protecting of coconut palm against pest and disease. Twenty five farmers attended this group meeting.

Training programmes

Conducted a total of 13 trainings during this quarter (On campus-4, off campus-3, Sponsored-6) A total



FLD on enrichment of paddy straw for dairy animals

of 256 participants including 95 men and 161 women attended the programme.

Sponsored training programmes under SGSY on 'Scientific vegetable cultivation' (3 days), 'Coconut plant protection' (2 days), 'Coconut product diversification' (3 days), and Dairy farming (4 days) were conducted from 19th May to 31st May 2011 for Muthukulam Block Panchayath. Sixty one farmers participated in the training programmes.

On farm Testing

On Farm Testings on (1) Oral pellet vaccine against Ranikhet disease in backyard poultry, (2) Assessment of different rice hybrids for their performance under scientific management, (3) Assessment of effect of vegetable special in cowpea, (4) Assessing the effectiveness of neem soap in cowpea, (5) Assessment of cartap hydrochloride against leaf folder in direct sown rice were completed.

Frontline Demonstrations

FLDs on (1) Introduction of HYV Thilarani for improving productivity

of sesamum in Onattukara, (2) Application of magnesium sulphate in paddy, (3) Soil test based nutrient management in sesamum in Onattukara region, (4) Management of blast disease in paddy and (5) Wilt management in cowpea were concluded.

National Initiative on Climate Resilient Agriculture

In Kuttanadu region, two interventions on mushroom cultivation and integrated duck fish farming were initiated. Selected farmers were given training and exposure visits and the technology demonstrations are in progress. In addition, two trainings on "goat rearing" was conducted for women farmers. Soil sample collection of the cultivated lands and socio-economic survey of the farmers are in progress.



Training on mushroom cultivation

DISTINGUISHED VISITORS

Name & Designation	Date of visit/ place	Purpose
Dr. H.P. Singh, DDG (Hort.)	RC, Kahikuchi 08-05-2011	Reviewing the ongoing research programmes
Dr. H.P. Singh, DDG (Hort.)	Regional Station, Kayamkulam 08-05-2011	Reviewing the ongoing research programmes on coconut root (wilt) disease
Prof. D.P. Ray, Vice-Chancellor, Orissa University of Agric & Technology	RC, Kahikuchi 21-05-2011	Visit to NEH Region
Dr. P. Rethinam, Formerly Executive Director, APCC, Jakarta	RC, Kahikuchi 21-05-2011	Visit to NEH Region

CELEBRATIONS

CPCRI Recreation Club

Annual Day of the CPCRI Recreation Club was held on 23-05-2011 at 6.00 PM in Kasaragod. Shri Rehman Thayalangadi, noted journalist and writer was the chief guest. Dr. George V. Thomas chaired the meeting. Inaugural programme was followed by variety entertainment performed by



Shri Rehman Thayalangadi inaugurating Club Day celebrations at Kasaragod

staff of the Institute and their family members.

Annual Club Day celebrations were held on 7th April 2011 at Kayamkulam. Shri. K.A.Muraleedharan, Director, Akashavani, Thiruvananthapuram was the chief guest. Shri. Muraleedharan Thazhakkara, Farm Journalist Award Winner 2010 and Programme Executive, Akashavani, Thiruvananthapuram was the guest of honour. Shri. C.S. Rajesh Mavelikkara, budding poet, offered felicitation. The cultural programmes such as dance, musical concert, kathakali etc., were performed.

NEW PROJECT SANCTIONED

Protection of Plant Varieties and Farmers Rights Authority (PPVFRA), Government of India, New Delhi has sanctioned a Central Sector

Scheme for PPVFRA legislation and to conduct distinctiveness, uniformity and stability (DUS) test on coconut for the financial year 2011-12 with an outlay of

ANY OTHER INFORMATION

Infrastructure Development

Four units each of Type-II and Type-III quarters have been completed at RC, Kahikuchi.

Computer literacy

Training on Computer Applications for technical staff of Vittal and Kidu was organized at Vittal during 27-28 May 2011. eighteen technical staff attended the training.

Children's Science Congress

Kerala Sasthra Sahitya Parishad, Kasaragod district organized the District Children's Science Congress at the Krishi Vigyan Kendra, Kasaragod and Alappuzha district organized the District Children's Science Congress at the Krishi Vigyan Kendra, CPCRI Regional Station, Kayamkulam, during May 2-3, 2011. Several talented students from various schools in the respective districts participated in the two-day congress.



Shri C.K. Sadasivan MLA inaugurating the District Children's Science Congress at Kayamkulam

Rs. 6 lakhs. CPCRI is identified as a new DUS testing Centre and Director, CPCRI is the Nodal officer for this scheme.

PERSONALIA APPOINTMENT

Name of the official	Designation	Location	w.e.f.
Shri K.M. Jayarama Naik	Administrative Officer	CPCRI, Kasaragod	09-06-2011
Smt. Anitha N.	LDC	CPCRI, RS, Kayamkulam	10-06-2011

TRANSFER

Name of the staff / Designation	From (Place)	To (Place)	w.e.f.
Dr. T. Vidhan Singh	Sr. Scientist (FM &P), CPCRI, Kasaragod	DRR, Hyderabad	02-05-2011
Dr. N. Ravikumar	Sr. Scientist, Computer Application, CPCRI, Kasaragod	CRIDA, Hyderabad	08-04-2011
Dr. S. Arulraj	Project Coordinator (Palms), CPCRI, Kasaragod	Director, DOPR, Pedavegi, A.P.	18-04-2011
Dr. T. Arumuganathan	Scientist (SS), AS & PE), CPCRI, Kasaragod	Programme Coordinator, K.V.K., Peruvannamuzhi	28-04-2011
Shri K. Devadas	T 6 Technical Officer CPCRI, RC, Kidu	CPCRI, Kasaragod	30-06-2011

PROMOTION

Name of the staff	From (Designation)	To (Designation)	w.e.f.
Shri R. Sanalkumar	T 7-8 Sub. Matter Specialist KVK, Kasaragod	T 9 Sub. Matter Specialist	11-12-2008
Dr. S. Keshava Bhat	T 7-8 Technical Officer CPCRI, RS, Vittal	T 9 Sr. Technical Officer	01-01-2009
Smt. K. Shobha	T 6 Technical Officer CPCRI, Kasaragod	T 7-8 Technical Officer	01-01-2009
Smt. Meenakshi Patil	T 5 Technical Officer (Lib.) CPCRI, RS, Vittal	T 6 Technical Officer (Lib.)	07-01-2009
Dr. Neelofar Illias Kutty	T 6 Sub. Matter Specialist KVK, Kasaragod	T 7-8 Sub. Matter Specialist	10-06-2009
Dr. C. Kesavan Nampoothiri	T 6 Technical Officer CPCRI, RS, Kayamkulam	T 7-8 Technical Officer	01-07-2009
Dr. M. Shanavas	T 6 Technical Officer CPCRI, RS, Kayamkulam	T 7-8 Technical Officer	01-07-2009
Dr. Bikash Chowdhury	T 6 Technical Officer CPCRI, RC, Kahikuchi	T 7-8 Technical Officer	25-11-2009
Smt. K. Sreelatha	UDC, CPCRI, RS, Kayamkulam	Assistant, CPCRI, RS, Kayamkulam	29-04-2011
Shri C.H. Amaranath	T 6 Technical Officer CPCRI, Kasaragod	T 7-8 Technical Officer	01-01-2010
Smt. M. Vimala	SSS, CPCRI, Kasaragod	T 1 Junior Technical Assistant	26-05-2011

RETIREMENT

Name	Designation	Place	Superannuation on
Shri M.B. Sukumaran	T4 (Artist)	CPCRI Kasaragod	30-04-2011
Shri M. Raveendran	SSS	CPCRI Kasaragod	30-04-2011
Shri Mangesh K Morajkar	T3 (Tech. Asst.)	CPCRI, RS, Vittal	30-04-2011
Shri K. Pakkeeran	SSS	CPCRI Kasaragod	31-05-2011
Shri Khoka Roy	SSS	CPCRI, RC, Mohitnagar	31-05-2011

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