



# CPCRI

# NEWS



## CENTRAL PLANTATION CROPS RESEARCH INSTITUTE

KASARAGOD - 671 124, KERALA

Vol. 28, No. 4

October - December, 2009

### HEARTY CONGRATULATIONS

Hearty congratulations to Dr. S. Ayyappan on assuming charge as Secretary, Department of Agricultural Research and Education, Government of India and Director General, ICAR, New Delhi on 1<sup>st</sup> January 2010. Dr. S. Ayyappan took over the charge from Dr. Mangala Rai, who retired from official service on 31<sup>st</sup> December, 2009.

Dr. Ayyappan, an eminent scientist in fisheries sciences, has been the fellow of NASS and has also received many awards including ICAR Team Award and Special ICAR Award. His contributions to marine and fresh water fisheries as well as aquaculture research and development are phenomenal. He did his Master of Fisheries and Ph. D. From College of Fisheries, Mangalore during 1977 and 1988, respectively. He was Deputy Director General (Fisheries) (2002 - 2009) prior to the present assignment. He has also served as Director, CIFE (2000 - 2002) & Director CIFA (1996-2000).

The Director and Staff of CPCRI wish Dr. S. Ayyappan all the best in the present assignment and look forward to his valuable guidance and support in the research and developmental activities of CPCRI.

### MESSAGE FROM DIRECTOR GENERAL, ICAR



I am happy to note that Central Plantation Crops Research Institute of the ICAR is bringing out a quarterly Newsletter "CPCRI News" depicting important research achievements, technology transfer and other activities of the Institute. I am sure that this publication will serve as a source of Information on the vital activities of the Institute to those interested in plantation crops viz.. coconut, arecanut and cocoa. Adequate coverage is being given to the research achievements, infrastructure development, new initiatives, publications and most importantly the technology dissemination efforts including the KVKs functioning in the institute.

It is hoped that the newsletter will be published regularly and I convey my best wishes for success of the publication.

(S. Ayyappan)

Secretary (DARE) & Director General (ICAR)  
New Delhi

Dated the 25 February, 2010

### FORTHCOMING EVENTS

#### INTERNATIONAL CONFERENCE ON COCONUT BIODIVERSITY FOR PROSPERITY

An international conference on "Coconut biodiversity for prosperity" is scheduled to be held at CPCRI, Kasaragod during 27-30 October, 2010. This conference will be organised jointly by the Indian Society for Plantation Crops, Central Plantation Crops Research Institute and the Indian Council of Agricultural Research. The theme areas for the conference include Biodiversity conservation and

utilization, biotechnological advancements, efficient resource utilization, impact of climate change, plant health management, Post-harvest management and value addition, coconut for health and livelihood security through biodiversity utilization. Last date for receipt of abstracts for the conference is 30<sup>th</sup> April 2010.

More details are available on the CPCRI website [www.cpcri.gov.in](http://www.cpcri.gov.in)

## INAUGURATION OF AGRO-PROCESSING COMPLEX AND FOUNDATION STONE LAYING FOR BIOINOCULANTS LABORATORY

An agro-processing complex was inaugurated at CPCRI Kasaragod on 19-12-2009. In a function held at CPCRI, Dr. H.P. Singh, Deputy Director General (Horticulture) formally declared open the agro-processing complex and stressed that the technologies developed at the institutes should be farmer-friendly and should be capable of enhancing the income for the farmers. He also emphasised that the technology refining process to be a continuous endeavour to make the technologies viable. Dr. M.M. Pandey, DDG (Agri. Engg.) in his presidential address, emphasised the need for commercialization of technologies to develop a business environment in the process of technology

development and transfer. The new Complex is equipped with all processing gadgets and machinery for production of coconut chips, snow ball tender coconut, virgin coconut oil (VCO) and other coconut and arecanut based products.

Dr. H.P. Singh, DDG (Hort.) also laid the foundation stone for construction of a Bio-inoculants Production Laboratory at CPCRI, Kasaragod in the presence of Dr. M.M. Pandey, DDG (Agri. Engg.). The bio-inoculants production laboratory is aimed at research and mass production of agriculturally important micro organisms useful for the benefit of farming community. Dr. George V. Thomas, Director, CPCRI, Kasaragod and the Directors from various ICAR Institutes were present during the function.



Dr. H. P. Singh, DDG (Hort.) lighting the lamp during the inaugural function at CPCRI, Kasaragod. Dr. M.M. Pandey, DDG (Agri. Engg.), Dr. P. Rethinam, Formerly Exec. Director, APCC, Jakarta, Dr. George V. Thomas, Director CPCRI and Dr. Pitam Chandra, Director, CIAE, Bhopal are also seen



Foundation stone laying for bioinoculant production laboratory

## IMPORTANT MEETINGS / PROGRAMMES HELD

### Research Advisory Committee Meeting

The Research Advisory Committee Meeting of the Institute was held from 17<sup>th</sup> -18<sup>th</sup> December, 2009 at CPCRI Kasaragod under the chairmanship of Dr. P. Rethinam, Former Exec. Director, APCC, Jakarta. Dr. Irulappan, Dr. S.P. Singh, Dr. B. N. Choudhary, Shri R. Sundara Rama Raju, Smt. Baby Balakrishnan and Shri Kodoth Govindan Nair, were the members of RAC have also participated. Three Institute publication were released by RAC Chairman and members. Recommendations were given for refining the ongoing research activities and addressing the emerging issues on the mandate crops. The members of RAC have visited the experimental plots and labs, interacted with the scientists and have given suggestions for the various research programmes.



Dr. P. Rethinam, Chairman, RAC releasing cocoa calendar during RAC meeting

### Mechanisation Workshop

A workshop on "Tools and machinery for development of horticulture" was held at CPCRI, Kasaragod during 18-19 December, 2009. Dr. H.P. Singh,



DDG (Hort.), Dr. M.M. Pandey, DDG (Agri. Engg.), Dr. Pitam Chandra, Director, CIAE, Bhopal and Directors from institutes such as CISH, Lucknow, CARI, Port Blair, IIHR, Bangaluru, NRC on Litchi, Muzaffarpur, IIVR Varanasi, DCR, Puttur, IISR, Kozhikode, NRC for Banana, Tiruchirappilly, NRC for Grapes, Pune and other institutes under the Division of Horticulture, ICAR have participated and shared their views on tools and machinery. The participants have also visited the agro-processing complex of CPCRI and observed the working of the PHT machinery there.

### Seminar on statistical methods

A seminar on “Statistical methods for perennial crops- current status and future strategies” was held during 30-31<sup>st</sup> October 2009 at CPCRI Regional Station, Vittal, Karnataka. Thirty one delegates from various institutes, commodity boards and universities have attended the seminar. Dr. George V. Thomas, Director, CPCRI Kasaragod, presided over the inaugural session. Dr. M.G. Bhat, Director, DCR, Puttur, inaugurated the seminar. Technical sessions on statistical methodology for cropping system research, computational technique



Statistical methods for perennial crops- current status and future strategies held at CPCRI, RS, Vittal

for conventional/ molecular breeding and challenges in minimizing the experimental error were held.

### AMAAS Workshop

A one-day meeting was organized on 17-11-2009 in collaboration with NBAIM, Mau for half-yearly review of the theme – Microbial diversity and identification of the ICAR Network on application of microorganisms in agriculture and allied sectors. Dr. T.P. Rajendran, ADG (Plant Protection), ICAR chaired the session. Prof. D.K. Arora, Director, NBAIM and Network Coordinator, Dr. George V. Thomas, Director, CPCRI, Dr. T.K. Adhya, Director, CRRI, Prof A. R. Alagawadi, Dean, College of Agriculture, Bijapur, Karnataka and 28 CO-PI's from different centres around the country attended the meeting. All the CO-PI's presented the research carried out in their respective centres during the last 6 months and the same was reviewed by ADG (Plant Protection).

### Bioinformatics training

A training programme on “Development and use of bioinformatics tools and resources for plant genome analysis” was conducted from 16<sup>th</sup> November 2009 to 25<sup>th</sup> November 2009 under DBT bioinformatics centre. The training programme covered topics relating bioinformatics tools that can be used for the plantation crops gene analysis and Perl programs to screen out the microsatellites.

### Short course on Organic Farming

At ten days ICAR Short course on “Utilization of wastes from planation crops for improving soil health and fertility, crop production, post-harvest output and socio-economic status of farmers” was organised at CPCRI, Kasaragod during 1-10 December, 2009. Sixteen participants from different parts of the country attended this training.

## RESEARCH HIGHLIGHTS

### New coconut varieties from CPCRI

Two coconut selections and two hybrids have been recommended for release during the XIX<sup>th</sup> AICRP (Palms) biennial workshop held at Navsari Agricultural University, Gujarat during 12-14<sup>th</sup> October, 2009.

#### Kalpa Samrudhi

Considering superiority of the hybrid IND 376 (MYD x WCT) for higher average nut yield (117 nuts/ palm), high copra out turn (25 kg/ palm/ year), oil yield of 3.04 t/ ha under rainfed condition, it is recommended for cultivation in Kerala and Assam. Besides, this hybrid has good tender nut water quality with TSS 6° brix and quantity (346 ml/ nut) and has been reported as relatively drought tolerant over other released hybrids.



Kalpa Samrudhi



### Kalpa Sankara

This coconut hybrid (CGD x WCT) was released for cultivation in the root (wilt) disease prevalent tracts. Kalpa Sankara gives a yield of 84 nuts/palm/year. Considering its semi tall nature, precocious bearing, high yield and perceived drought tolerance, this is considered suitable for the root (wilt) disease prevalent tracts.



Kalpa Sankara

### Kalpasree

This variety was developed by selection of Chowghat Green Dwarf from the root (wilt) disease hotspot regions of Kerala. Kalpasree was recommended for release as a variety suitable for cultivation in homesteads in the root (wilt) diseased tract due to superior quality of coconut oil, very sweet tender nut water (240 ml per nut) and very sweet meat (kernel). The nutritive value of tender water is: total sugars-4.80 g/ml, potassium content-2150 ppm, sodium content-22.40 ppm, TSS - 4.8° Brix.



Kalpasree

### Kalpatharu

The variety is released from AICRP on Palms, Arsikere Centre in which CPCRI also has contributed in developing the variety by establishing the suitability

of this variety for ball copra production. Considering higher yield under rainfed conditions and suitability for ball copra production, it is recommended for release. The palms are drought tolerant with higher nut yield of 116 nuts /palm /year with copra yield of 3.57 t/ha. This variety is recommended for cultivation in the states of Karnataka, Tamil Nadu and Kerala.

### Conservation of genetic resources

A pink husked type was collected and included in the germplasm. The fruits of this accession are round in shape, yellow in colour with a ring of pink colour visible below the perianth portion. This is an unique collection,

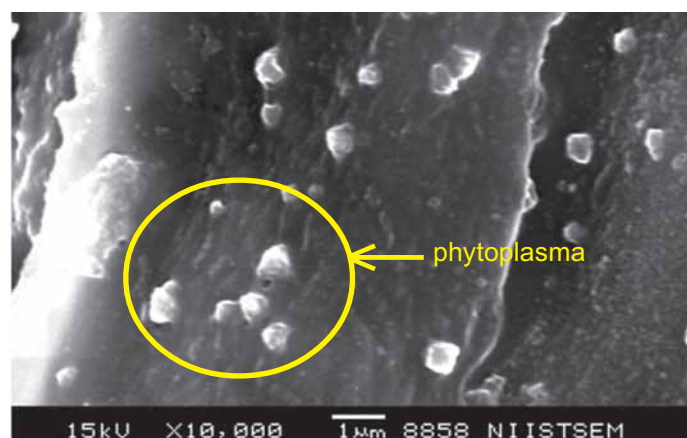


Indigenous pink coconut collection

since such visibly pink tinged fruits have not been reported earlier.

### Confirmation of Phytoplasma in root (wilt) disease of coconut by SEM and PCR techniques

Scanning electron microscopic (SEM) observation of root tissues of root (wilt) diseased palms and PCR with root (wilt) phytoplasma primers revealed presence of phytoplasma in the samples. Primers were designed for coconut root (wilt) phytoplasma by a team of



Scanning electron microscopic image of sieve tube element showing phytoplasma

scientists from CPCRI, Kasaragod, NRC for Banana, Thiruchirappilly and IIHR, Bangalore. The designed primers amplified expected bands in DNA extracted from root (wilt) diseased palms and phytoplasmic nature of the amplicons was further confirmed by sequencing.

### SSR data mining in date palm genome

The sequences of date palm nucleotides of 327 MB size were mined for SSR repeats. Out of 34,051

SSRs present, 2493 trimeric, 204 tetrameric, 8 pentameric and 4 hexameric and 1155 compound repeats were found. Annotation of 410 class I SSR containing sequences revealed, 69% of the sequences to code for transcription factors, protein kinases and zinc finger proteins. We have designed 20 primers were designed flanking simple sequence repeat regions for tagging resistant genes.

## NEW PROJECT SANCTIONED

An externally funded project on "Quick detection of root (wilt) disease of coconut using molecular kit" was sanctioned by Coconut Development Board for three years with an outlay of Rs. 50 Lakhs. Dr. R. Manimekalai, Scientist (SS), Biotechnology, is the PI of the project.

## HRD / TRAININGS

### Deputation Abroad

#### CPCRI scientists visit Sri Lanka

Dr. George V. Thomas, Director along with Dr. R. Manimekalai, Scientist (S.S., Biotech.), CPCRI, Kasaragod and Shri P. Rajan, Principal Scientist, CPCRI, RS, Kayamkulam have participated in the FAO Sponsored Collaborative workshop on Weligama Coconut Leaf Wilt Disease Management, at Colombo, Sri Lanka during 8-13 November 2009. Dr. J. J. Solomon, Retd. Principal Scientist (Plant Pathology), CPCRI and Dr. P. Joseph, Professor, Plant Pathology, Kerala Agricultural University, Thrissur, have also participated in the programme as experts from India. Visit to



Weligama coconut leaf wilt diseased plantation with leaf rot disease symptoms



Indian experts on FAO mission with Mr. Jayaratne, Minister for Plantation Industries, Secretary and Chairman, Coconut Research Board of Sri Lanka

Weligama coconut leaf wilt disease (WCLWD) affected areas revealed that Weligama leaf wilt disease is similar to RWD of India based on symptoms such as flaccidity, yellowing and necrosis. Leaf rot disease superimposed on WCLWD palms to the extent of around 50%. The nature and pattern of spread of the disease revealed disease occurrence in contiguous areas and also in leaps and bounds indicating possible transmission through insect vectors. The ongoing research programmes of Coconut Research Institute of Sri Lanka (CRI) were reviewed and suggestions were given by experts to refine the ongoing research programmes.



Name of the Scientist	Deputed to	Date
Dr. D. Balasimha	Bali, Indonesia to attend 16 <sup>th</sup> International cocoa research conference and 6 <sup>th</sup> INGENIC Workshop	16-24 November 2009
Shri S. Jayasekhar	Dakar, Senegal to attend Globelics Conference 2009 organised by United Nations.	6-8 October 2009
Dr. Anitha Karun	Suweon, South Korea to attend COGENT expert consultation on coconut Cryopreservation and embryo culture/exchange	30-11-2009 to 2-12-2009

## RECOGNITION

### Ph. D. awarded

Mrs. S. Leena, SMS, T9 (Entomology), KVK, Kasaragod was awarded Ph.D. degree by the University of Kerala for her thesis titled, "Identification of Coconut

Pest Management Practices among Farmers of Kerala and Validation of Few Farmer-Friendly Green Strategies against Selected Pest Insects".

### Training

Name and designation of personnel	Programme	Place and duration
Dr. V. Niral	Attended sixth training course on 'Application of genomics technologies in plant breeding' at Center of Excellence in Genomics	ICRISAT, Patancheru 16-27 November 2009
Ms. C. Radhika	Training programme on "Agricultural policy analysis" at the Council for Social Development	New Delhi 7-11 December 2009
Dr. K. Samsudeen	Short course on Current regulations and policies for access to genetic resources	NBPGR, New Delhi 10-19 November, 2009

## PUBLICATIONS

### Research Paper

Naresh Kumar, S., Rajeev, M.S., Vinayan, Nagvekar, D.D., Venkitaswamy, R., Raghava Rao, D.V., Boraiah, B., Gawankar, M. S., Dhanapal, R., Patil, D.V. and Kasturi Bai, K.V. 2009. Trends in weather and yield changes in past in coconut growing areas in India. *J. Agromet.* 11: 15-18.

### Papers presented in Seminar/ Symposia/ Conferences

Abstracts in National Symposium on Recent Global Developments in the Management of PGR, December 17-18, 2009, NBPGR, New Delhi.

Samsudeen, K., Thamban, C., Niral, V., Augustine Jerard, B., Rajesh, M.K., Devadas, K. and Nair, R.V. 2009. *In situ* characterization – A novel approach to characterize local ecotypes of coconut.

Rajesh, M.K., Samsudeen, K., Shafeeq, A., Jiji George and Nair, R.V. 2009. Diversity in coconut populations from Amini and Kadamat Islands of Lakshadweep as revealed by molecular markers.

Anitha Karun, Sajini, K.K., Niral, V. and Nair, R.V. 2009. Cryopreserved coconut pollen for seed production.

Manimekalai, R. and Nagarajan, P. 2009. Cultivar identification and cluster analysis in coconut (*Cocos nucifera* L.) based on Inter Simple Sequence Repeat (ISSR) markers.

Manimekalai, R. and Nagarajan, P. 2009. Bulk line analysis in coconut (*Cocos nucifera* L.) for inferring relationship between tall, dwarfs and Niu Leka Dwarf forms.

Manimekalai, R. and Nagarajan, P. 2009. SSR and ISSR markers based population genetic structure of coconut (*Cocos nucifera* L.) germplasm accessions.

In Proceedings of 50<sup>th</sup> Annual AMI Conference, NCL, Pune, 15-18 December, 2009

Litty Thomas, Alka Gupta, Murali Gopal, Priya George and George V. Thomas. 2009 Isolation of *Bacillus* spp. from rhizosphere of Cocoa (*Theobroma cacao* L.) and assessment of their plant growth promoting potential. pp.91.

Priya George, Alka Gupta, Murali Gopal, R. ChandraMohan, Litty Thomas, George V. Thomas. 2009. Antagonistic activity of coconut rhizospheric and endophytic *Bacillus* spp. against *Ganoderma applanatum* and *Thielaviopsis paradoxa*. pp 92.

Rajan, P. 2009. Epidemiological and vector studies of coconut root (wilt) disease. FAO Sponsored Collaborative workshop on Weligama Coconut Leaf Wilt Disease Management in Sri Lanka, November 9-12, 2009, CRI, Sri Lanka.

Rajan, P., Josephraj Kumar, A. and Chandrika Mohan, 2009. Status of *Brontispa longissima* Gestro- A world scenario. Special Group Meeting on *Brontispa longissima* held at NBAII, Bangalore, November 21, 2009, Bangalore.

### Invited papers

George V. Thomas, Kasturi Bai, K V. and Naresh Kumar, S. 2009. Impact of climate change on plantation crops. In.

Emerging trend in agriculture. Souvenir, M. S. Swaminathan Award, 2009. pp. 39-42.

### Popular article

Sugatha Padmanabhan and Kasturi Bai, K. V. 2009. Tender nut storage and quality. *Indian Naliker J.* 39 (1): 5-6 (Malayalam).

Maheswarappa, H. P. and George V. Thomas. 2009. Vermicomposting from coconut leaves for natural farming. *Bharateeya Tengu Patrike*, 20(2): 23-25. (In Kannada).

Maheswarappa, H. P. and Muralikrishna, H. 2009. CPCRI- In the service of farmers. *Bharateeya Tengu Patrike*, 20(2): 26-28. (In Kannada).

Venugopal, S. and Chandramohan, R. 2009. Immature nutfall of coconut in India: An Overview. *Indian Coconut J.* 52 (8): 11-17.

Rajan, P., Nair, C.P.R., Josephraj Kumar, A. and Chandrika Mohan. 2009. Coconut leaf beetle, *Brontispa longissima*- An

invasive pest of concern. *Indian Coconut J.* 52(6): 8-11.

### Books

Elain Apshara, S. and Rajan, P. 2009. Profile of cocoa collections at CPCRI, Research Centre, Kannara.

Kasturi Bai, K. V., Naresh Kumar, S. and Rajagopal, V. 2009. Abiotic stress tolerance in coconut. CPCRI, Publication.

### Extension Folders

Maheswarappa, H.P., Srinivasa Reddy, D.V. and Krishna Kumar, V. 2009. Intercropping of medicinal plants in coconut garden. Extension pamphlet No. 188. CPCRI, Kasaragod.

Rajan, P., Nair, C.P.R., Josephraj Kumar, A. and Chandrika Mohan. 2009. Coconut leaf beetle, *Brontispa longissima*, CPCRI, Kasaragod.

### Technical Bulletin

Elain Apshara, S., Balasimha, D. and Venkatesh N. Hubballi. 2009. Calendar for Cocoa.

## TRANSFER OF TECHNOLOGY

### KASARAGOD

#### Model Training Course

Model training course on 'Crop management technologies for coconut, arecanut and cocoa cultivation' sponsored by Directorate of Extension, Ministry of Agriculture, New Delhi was conducted from 20-10-2009 to 27-10-2009. Fourteen officers of Department of Agriculture/Horticulture from eight States have participated in the course.

On-campus training programme was organised on coconut climbing using mechanical device was organised on 15-10-2009 in collaboration with District Kudumbasree Mission, Kasaragod in which 30 rural men and women have participated. Dr. K. Rajasekharan, District Mission Coordinator, Kudumbasree project inaugurated the training programme.

Off-campus training programme was organised on 'Coconut based integrated farming' in collaboration with Krishi Bhavan, Pullur-Periya on 03-11-2009 in which 30 farmers attended.

#### Special training programme on 'Preparation of coconut chips'

The programme on was organized on 10-11-2009 and 24-11-2009 in which 10 entrepreneurs from Dakshina Kannada, Kasaragod, and Kannur Districts have participated.

#### Research-Media Interface programme

Conducted during 5-6 October 2009 with the objective of sensitising media personnel about the research activities and achievements of the Institute so as to enable them to formulate appropriate messages to



Media personnel during exposure visit to CPCRI RC Kidu benefit the farming community through print and electronic media. Thirty media personnel attended the interface programme. The interface programme was inaugurated by Mr. Siby John Thooval, President, Kasaragod Press Club. Dr. George V. Thomas, Director presided over the inaugural function. Exposure visit and interaction with scientists was conducted at CPCRI, RS, Vittal and CPCRI, RC, Kidu.

#### Cyber Extension Programmes

Scientist-Extension personnel interface programmes facilitated through videoconferencing were conducted on 13-10-2009 and 27-10-2009. Scientists from CPCRI, Kasaragod, and CTCRI, Trivandrum and extension personnel attending model training courses have participated in the interface programmes.

#### Awareness-cum- training programme

A programme on soil and water conservation and water harvesting was organised at Madikkai on



16-10-2009 under the 'Farmer participatory action research programme (FPARP) on soil and water conservation and Water Harvesting in the West Coast Region of Kerala' sponsored by Ministry of Water Resources, New Delhi.

The water harvesting structures constructed under the project were inaugurated by Mr. D.S.C. Thambi, Regional Director, Central Ground Water Board, Kerala Region, Trivandrum during the occasion. Dr. George V. Thomas, Director CPCRI presided over the inaugural functions.



Inauguration of recharge well unit at Kanhirapoyil

### ATIC activities

About 1100 visitors comprising farmers, extension personnel and students made use of ATIC facilities during the period. Technology inputs and products such as planting materials, farm products, farm literature and CD ROMs worth Rs. 1,17,476/- were sold through ATIC.

### Radio programmes

Dr. C. Thamban, Sr. Scientist delivered a radio talk on 'Cluster approach for coconut development', which was broadcast by All India Radio, Kannur on 26-11-2009.

He has participated in phone-in- programmes which were broadcast by All India Radio, Kannur covering topics on 'Irrigation methods for coconut' and 'Delayed flowering in coconut - reasons and remedial measures' during 04-12-2009 and 25-12-2009 respectively.

### KAYAMKULAM

Thirty farmers from various blocks of Kanyakumari District of Tamil Nadu visited CPCRI Regional Station, Kayamkulam in 19<sup>th</sup> October, 2009 and interacted with the scientists on pests and diseases of coconut.

Dr. V. Krishnakumar, Senior Scientist participated in the discussions on programmes for root (wilt) disease affected areas held on 22-10-2009 at

Karunagappally organized by the Department of Agriculture and Coconut Development Board. He has participated in the discussions on Project formulation of Coconut Planting under Kuttanad Package organized by the Project Officer, Kuttanad Package at RRS, Moncompu on 11-12-09.

### Trainings

Dr. P. M. Jacob, Principal Scientist and Dr. Regi Jacob Thomas, Senior Scientist handled a two-day training programme on "Elite seedling production for the root (wilt) disease affected region" conducted at CPCRI, Regional Station, Kayamkulam during 18-19<sup>th</sup> November 2009 for three officials from Krishi Vigyan Kendra, Pathanamthitta District.

Dr. P. M. Jacob, Principal Scientist organized training on "Artificial pollination for the hybrid production in coconut" at CDB Farm, Neriamangalam for CDB staff. One day trainings on recent advances in coconut cultivation, with special emphasis on plant protection operations were imparted to the following groups of farmers under ATMA programme:

- Kulanada Block – 34 farmers on 08-10-09
- Thiruvalla – 30 farmers on 16-10-09
- Nagercoil, Kanyakumari – 30 farmers on 19-10-09
- Mallappally, Thiruvalla – 50 farmers on 04-11-09
- Cherthala Block -22 women farmers on 26-11-09
- Erumeli Block – 17 farmers on 01-12-09
- Chettivilakom Block, Thiruvananthapuram – 54 farmers on 07-12-09
- Thrithala Block, Palakkad - Six farmers on 28-12-09

Skills were imparted on plant protection techniques and coconut climbing.

Conducted one day off-campus training programme for 30 farmers of Ranny block on 'Rehabilitation of Arecanut Gardens in Kerala' on 24-10-09, jointly organized by SHM and State Department of Agriculture.

One day training on Scientific Management of Coconut was given to farmers brought under the exposure visit programme of the National Horticultural Mission from Mathur and Bargur Blocks of Krishnagiri District of Tamil Nadu on 17-12-09.

The CBO Pathiyoor arranged a camp for the members on 'Health, Hygiene and Nutrition'. In connection with this, vegetable seeds were distributed to all CBO members and a sale of products was also arranged. The oil expeller was handed over to a women group involving more members and strengthened the production and marketing of VCO. Activities were expanded to entire panchayat.

### VITTAL

An on-farm training programme on 'Arecanut based multi-species cropping system' was conducted



at Ananthady village in Bantwal taluk on 27-11-2009 under the sponsorship of Directorate of Arecanut and Spices Development (DASD) in which 75 farmers participated.



Training programme on arecanut based multi-species cropping system at Ananthady, Dakshina Kannada

Organized two days training programme on 'cocoa production technology' in collaboration with Dept. of Horticulture, Karnataka on 22<sup>nd</sup> & 23<sup>rd</sup> December 2009 for 80 farmers of Belthangady village, DK district. A Model training course on Crop management technologies for coconut, arecanut and cocoa cultivation was organized on 26-10-09.



Field visit at Ananthady, Dakshina Kannada

### MOHITNAGAR

Dr. Gobinda Ch Acharya participated in a programme on performance and economics of arecanut based high density multi-species cropping system, telecasted on 11<sup>th</sup> November 2009 under Krishi Darshan" on DD (Bangla).

### Training programmes

Organised four on-campus training programmes for 30 KPSs (Krishi Prayukti Sahyak, Govt of West Bengal) and 30 farmers on different aspects of plantation crops on 08-10-2009 and 10-10-2009, 25-11-2009, 26-11-2009.

### KVK, CPCRI, Kasaragod

### Training programmes

Organised a total of 37 training programmes for the benefit of 936 (503 men and 433 women) participants

comprising practising farmers, farm women, members of women self help groups, rural youth, vocational students and extension personnel. Out of these, 23 were on-campus and 14 were off-campus training programmes wherein 501 (280 men and 221 women) and 435 (223 men and 212 women) were trained.

### Front line demonstrations

Participatory management of Bud rot disease in coconut: This FLD was conducted in an area of 10 ha at Bela village of Badiadka panchayath. Training and method demonstrations were conducted with active participation of farmers. Critical inputs such as Mancozeb sachets, Copper sulphate and lime were supplied to farmers. No incidence of bud rot is reported so far and the programme is being continued.

### On Farm testing of crop management technologies

This OFT started during last year, with four technology options is going on. The technology is being tested in 5 farmers' fields at Bela, Neerchal and Badiadka villages belonging to Badiadka panchayath.

Besides, six technologies viz., effectiveness of cassava based bio-pesticides against banana pseudo stem weevil, management of stem bleeding disease in coconut, evaluation of grafted pepper in arecanut garden against foot rot, testing of elephant foot yam as inter crop in arecanut garden, high density planting of banana and evaluation on the performance of cabbage and cauliflower as inter crop in coconut garden, started during the period are in progress.

### Extension activities/ services

During the quarter, a total of 121 extension activities comprising agricultural seminars, workshops, farmers visit to KVK, advisory services, helpline services, film show/Video CD, awareness programmes, field visits, method demonstrations on nursery preparation and transplanting in SRI, root feeding techniques of plant protection chemicals etc. were conducted wherein beneficiary farmers were appraised of modern production, protection and post harvest technologies of various crops and allied enterprises. Besides, three radio programmes were presented by the SMSs and six activities of KVK were covered in news papers/TV.



On campus training programme on mushroom cultivation

### Scientific Advisory Committee (SAC) Meeting

The 14<sup>th</sup> Scientific Advisory Committee meeting of KVK, Kasaragod was held on 19-10-2009 under the Chairmanship of Dr. George V. Thomas, Director,



Demonstration of fish pond at KVK, Kasaragod

CPCRI. Dr. D.V.S.Reddy, Sr. Scientist, ZPD, SAC members from line departments, farmer representatives, Heads of Divisions of CPCRI and KVK faculty attended the meeting and assessed the ongoing activities of KVK.

**Demonstration Unit :** A demonstration unit on fresh water fish culture was established at KVK and two training programmes were organized in collaboration with the fisheries department under Agricultural Technology Management Agency (ATMA) Project during 19-11-09 and 19-12-09 in which a total of 68 farmers attended.

### Krishi Vigyan Kendra-Alleppey

#### Training programmes

KVK Alleppey has conducted 11 on-campus trainings, 12 off-campus and 20 sponsored trainings and 4 vocational trainings during this quarter.

#### External funded programmes

##### Planning Board funded Large Area FLD on Paddy

The FLD is being implemented in 6 padasekharams (153 farmers) at Thakazhi in a total area of 258.5 acres. Two soil testing campaigns were conducted. A total of 500 numbers of soil samples analysed and fertilizer recommendations were suggested. Three trainings were conducted on (i) INM in rice for better soil health (ii) Integrated Pest Management through environmentally safe methods in rice and (iii) Integrated Disease

Management through environmentally safe methods in rice.

### Kisan Ghoshti

The subject matter specialists of KVK attended the farmer – scientist interaction programmes organised by ATMA at Ponnittassery and Cheppad in which 367 progressive farmers from 12 panchayaths and 45 extension officials participated.

### Farmers Field School (FFS)

The FFS concept is implemented among five groups of coconut farmers in Alleppey District with main theme integrated management of Rhinoceros beetle with emphasis on bio control agent *Metarhizium* fungus.

### Exposure visits of farmers to KVK

A total of 159 farmers in four groups from Palaghat, Ernakulam , Pathanamthitta districts visited KVK – Alleppey during this quarter.

**Demonstration on Sree Jaya – high yielding cassava variety:** The demonstration conducted at Thekkekkara and Cheriyanad panchayaths showed that Sree Jaya yielded 22.5 t/ha compared to the local check 14.5 t/ha with a B: C ratio of 2.86 and 1.39 respectively.

**Effect of Trichoderma against stem bleeding of coconut:** The OFT conducted in Devikulangara panchayath resulted in reduction of horizontal spread of the disease to new palms.

### SWPTL

During the period, 528 soil samples, two plant samples and three water samples and one plant sample were analyzed for the benefit of 185 farmers and generated a revenue of Rs. 16970.

### ATMA- Alleppey activities

The KVK organised eight training programmes for ATMA farmers from Kottayam, Pathanamthitta, Kollam and Alleppey districts.

**'Harithavruthantham' - Technical SMS service to stakeholders of KVK**

SMS alert service through mobile phone was started at KVK, Alleppey to ensure farmers linkage programme. Valuable information related to agricultural technology will be transmitted through SMS to progressive farmers, line department and extension officials.

## CELEBRATIONS

### Vigilance Awareness Week

Vigilance awareness week was held from 3<sup>rd</sup> to 7<sup>th</sup> November 2009 at CPCRI, Kasaragod and its Regional Stations and Research Centres. Dr. R. Dhanapal, Head Crop Production Division and Vigilance Officer

welcomed the gathering and delivered a talk on vigilance and its importance of observance of Vigilance Awareness Week in government offices. Pledge was taken by the staff during the occasion.



## SEMINARS / SYMPOSIA / CONFERENCES / WORKSHOPS ATTENDED

Name and designation	Title	Place & Date
R. Chandramohan, Head Crop Protection	Delivered lecture on 'State of art of root (wilt) disease of coconut' in the V International Conference on Plant Pathology for the globalized era.	IARI, New Delhi 10-13, November 2009
Dr. George V. Thomas, Director, Dr. R. V. Nair, Head, Crop Improvement, Dr. P. M. Jacob, Prin. Scientist, Dr. V. Niral, Dr. B.A. Jerard, H.P. Maheswarappa Dr. Regi Jacob Thomas Sr. Scientists	XIX Biennial Workshop of AICRP on Palms at Navsari Agricultural University	Navsari, Gujarat 12-14 Oct. 2009
Dr. H.P. Maheswarappa Sr. Scientist	International Food and Agricultural Expo and delivered a lecture on Coconut based cropping system in the farmer's seminar	Cochin 19 <sup>th</sup> Nov. 2009
Dr. V. Niral, Sr. Scientist and Dr. R. Manimekalai, Scientist (SS)	National Seminar on "Horticultural Biotechnology" at Indian Institute of Horticultural Research (IIHR)	Bangalore 28-29, October 2009
Dr. V. Niral, Sr. Scientist	National consultative debate on issues related to registration of trees and plantation crops under PPV&FR Act 2001 at NRC Citrus	Nagpur 8 <sup>th</sup> December, 2009
Dr. R. Manimekalai, Scientist (SS)	Delivered a lecture on "Simple Sequence Repeat (SSR) and Single Nucleotide Polymorphism (SNP) markers from Genomes" at ICAR sponsored short course on <i>In vitro</i> techniques and molecular markers for the improvement of banana and plantains at National Research Centre on Banana	Thiruchirapally 28-11-09
Ms. Radhika, Scientist	Seminar on "Statistical Methods for Perennial Crops – Current Status and Strategies"	CPCRI, RS, Vittal 30-31 October, 2009
Dr. Gobinda Chandra Acharya, Sr. Scientist	19 <sup>th</sup> Regional Committee Meeting (Region-III) organized by ICAR Research Complex for NEH Region, Umiam, Meghalaya	Chintan Bhawan, Gangtok 23-24 October, 2009
Mrs. K. Nihad Scientist (Hort.)	19 <sup>th</sup> Swadeshi Science Congress and presented a paper entitled "Microbial inoculants as nutrient substitute for higher root production in Chethikkoduveli ( <i>Plumbago rosea</i> L.)"	Mannuthy, Thrissur 10-12 Dcember 2009

## DISTINGUISHED VISITORS

Name of personnel & Designation	Date of visit/ place	Purpose
Dr. T.P. Rajendran, ADG (Plant Protection), ICAR	16-11-2009 CPCRI, RS, Vittal	Discussions with scientists about the research work on arecanut and cocoa



## OTHER INFORMATION

### Official Language implimentation

Mohitnagar Centre has been Notified in the Gazette of India for 85 % of staff passing of Hindi examination (Prgaya and Prabodh) under Rajbhasha Vibhag, Ministry of Home Affairs. The Centre has also bagged second prize for implementation of Hindi language in office works

among the different CPCRI locations.

### Women Cell

A visit was arranged to the unit of NAIP beneficiary at Madikkai Panchayat. The women members of the unit explained the value added products of coconut prepared by them using CPCRI technologies.

## PERSONALIA

### APPOINTMENTS

Name of staff	Post appointed	Place	Date
Dr. D. Jaganathan	Scientist (Agri. Extension)	CPCRI, RS, Vittal	30-10-2009

### PROMOTIONS

Name of staff	From (designation)	To (designation)	Date (w.e.f.)
Shri Balen Kalitha	T-3 Technical Assistant CPCRI, RC, Kahikuchi	T-4 Technical Assistant	1-1-2008
Shri K. Panduranga	T-1 JTA CPCRI Kasaragod	T-2 JTA	7-12-2007
Shri C.K. Unnichekkann	T-2 Driver CPCRI, RS, Kayamkulam	T 1-3 Driver	29-6-2007
Shri R. Vijayan	T-1 Driver CPCRI, RS, Kayamkulam	T-2 Driver	30-4-2008
Shri C. Ramesh Babu	Stenographer Gr-III CPCRI, RS, Kayamkulam	Personal Assistant	4-12-2009
Shri M. Ravindran	UDC, CPCRI, Kasaragod	Assistant	4-12-2009
Smt. Luicy D'Souza	UDC, CPCRI, Kasaragod	Assistant	4-12-2009
Smt. Prema Pillai	UDC, CPCRI, Kasaragod	Assistant	4-12-2009

### TRANSFERS

Name of staff	Designation	From (Place)	To (Place)
Shri A.R. Padmanabha Naik	T-1 JTA	CPCRI, RC, Kidu	CPCRI, Kasaragod

### RETIREMENTS

Name of staff	Designation	From (Place)	On account of
Shri Dinesh Ch Mohanta	SSS	CPCRI, RC, Mohitnagar	Superannuation on 31-12-2009
Smt. V.P. Thressia	SSS	CPCRI, RS, Kayamkulam	Superannuation on 31-10-2009

Published by: Dr. George V. Thomas, Director

Compiled and edited by: Shri H. Muralikrishna, Dr. B. Augustine Jerard and Shri John George

Photographic credits: Shri K. Shyama Prasad, Shri E.R. Asokan and S.N. Mohana Gowda

Central Plantation Crops Research Institute, Kudlu P.O., Kasaragod, Kerala – 671 124

Phone: 04994 232893, 232894, 232895, 233090, 232333 (Director); Fax: 04994 232322;

e-mail: cpcri@nic.in, cpcri@yahoo.com; website: www.cpcri.gov.in

Printed at: Codeword Process & Printers, Yeyyadi, Mangalore - 575 008 Phone: 0824-2214618

