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## From the Director's Desk



A century is a grand landmark in the history of an Institution. In the history of ICAR-CPCRI, it is a time for celebration, relook and rejuvenation. The past one hundred years were full of activities, which were a strong intellectual asset, some of which created legacy in the sector.

The Centenary Programmes were launched with unique planting of 100 coconut seedlings of 18 varieties of ICAR-CPCRI by 100 farmers, a Kisan Mela including exhibitions and scientist-farmer interfaces on 12-03-2016 at Kasaragod with participation of all stakeholders. A significant number of meetings have been organised and books, technical bulletins and folders have been released since the launching of centenary celebrations involving stakeholders brought an increased confidence and enthusiasm.

Primary efforts during the celebrations were to hold meetings at village, panchayat, district, regional and national levels. Meetings are the dynamic congregation bringing about changes, pivotal in setting platforms and directions towards progress. Interactions could set targets for short and long term goals for progress as well as turnkey solutions to problems.

Former colleagues had a vision, stakeholders too had their vision and expectations. Few experts have also led programmes in these directions, have also left us untimely, but the strong base of research put through, makes us salute those souls who have brought life and laurels to the institution holding its head high as a premier organisation in the world.

To meet the vision set by us and also to meet the expectations of stakeholders, we continue our of service to the farmers. Our efforts are to keep pace with the times to stand on the top of other competitors on the globe. We will be sharing our outcome and achievements regularly in different platforms. The 3<sup>rd</sup> International Symposium on Coconut Research and Development (ISOCRAD-3) from 10<sup>th</sup> to 12<sup>th</sup> December, 2016 and 22<sup>nd</sup> Plantation Crops Symposium (PLACROSYM-22) from 15<sup>th</sup> to 17<sup>th</sup> December, 2016 would make the event a meaningful one.



Shri Radha Mohan Singh, Hon'ble Minister for Agriculture and Farmers Welfare performing ceremonial planting of a coconut seedling at ICAR-CPCRI Regional Station, Kayamkulam. He also harvested the first bunch of coconuts from Gudanjali Green Dwarf variety. Shri Sunil Kumar, Minister for Agriculture, Kerala and Shri K.C. Venugopal, M.P., Alapuzha looks on.

## SPECTRUM

### Early flowering in Gudanjali Green Dwarf

A field experiment was initiated during July 2013 at ICAR-CPCRI, Regional Station, Kayamkulam to evaluate the performance of different green dwarf cultivars of coconut (Andaman Green Dwarf, Chowghat Green Dwarf, Gudanjali Green Dwarf, Gangabondam Green Dwarf, Malayan Green Dwarf and Niu Leka Green Dwarf)

in the root (wilt) disease prevalent tract. Observations recorded three years after planting revealed that 95% of Gudanjali Green Dwarf have started flowering followed by Gangabondam Green Dwarf (80%) and Chowghat Green Dwarf (75%). The initial performance of Gudanjali Green Dwarf with regard to inflorescence

production is significantly superior compared to other green dwarfs. Harvesting of the first coconut bunch was carried out by Shri Radha Mohan Singh ji, Hon'ble Union Minister for Agriculture and Farmers' Welfare, on 29<sup>th</sup> September 2016.

Regi J. Thomas and Shareefa, M.

### Bulbils in coconut palms

Intensive rooting was observed in bulbils on the coconut palm crown. Five bulbils each were potted and planted in plot at CPCRI, RS, Vittal.

Elain Apshara, S.



Twin bulbil palms at CPCRI, RS, Vittal



Bulbils in 2005



Rooted bulbils in 2016

### Variegated arecanut

Variegated arecanut was collected from Mr. Anil Balanjan's garden at Belthangady Tk., Dakshina Kannada Dt., Karnataka. The type of arecanut has variegated green stripes over the nut surface and different extent of endosperm inside the kernel as compared to normal arecanuts.



Variegated arecanut (Inset A: Normal arecanut, B: Variegated arecanut)

Nagaraja, N. R., Ananda, K. S. and Bhavishya

### Genetic resources collection

*Theobroma grandiflorum*, related to cocoa *Theobroma cacao* L., was collected from Soans Farm, Moodibidri, Karnataka. It is called as Cupuassu fruit in Brazil and its pulp is used in beverages and desserts. A form of chocolate and butter can be made from the beans. It will be utilised in root stock/resistance breeding of cocoa.

Elain Apshara, S.



*T. cacao*

*T. grandiflorum*



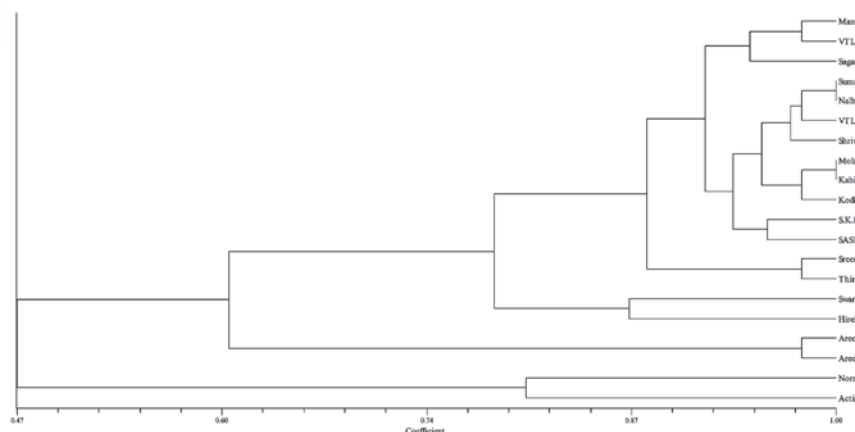
Pubescent leaves in *T. grandiflorum*



Cupuassu fruit

## Characterization of arecanut germplasm

Molecular characterization and genetic diversity analysis was carried out in 20 arecanut genotypes comprising of 16 cultivated types, including 13 cultivated varieties, two dwarf hybrids and one natural mutant and four wild species viz., *Areca triandra*, *Areca concinna*, *Normanbya normanbyii* and *Actinorhytis calapparia*, using simple sequence repeat (SSR) markers. Highest genetic similarity was observed between the cultivated varieties, Kahikuchi and Mohitnagar and Nalbari and Sumangala and the lowest similarity value of 0.33 was found between the wild species, *Normanbya normanbyii* and cultivated variety, Sreemangala. The dendrogram was constructed using similarity coefficient values by following the Unweighted Pair Group Method with Arithmetic



A UPGMA dendrogram based on SSR data from arecanut genotypes

Mean (UPGMA). The cultivated and wild species of arecanut clustered at 53% similarity. The dendrogram formed two major clusters with cluster I consisting of all the 16 cultivated varieties and two wild species viz., *Areca triandra* and *Areca*

*concinna* and the second major cluster comprised of remaining wild species like, *Normanbya normanbyii* and *Actinorhytis calapparia*.

Nagaraja, N. R.,  
Ananda, K. S. and Rajesh, M. K.

## Nut dropping in arecanut at Sringeri

A snap survey conducted revealed that several arecanut gardens (18 - 20 years old) in Honnavalli, Kigga, Halandur, Sringeri, Magalu, Belavinakudige and many other villages in Chikmaglore district of Karnataka exhibited immature nut (less than 8 months old) dropping from July to August. At least 15 - 20 % good bearing palms are affected randomly throughout the garden. The fallen nuts have

turned black and decay within two days. These nuts did not show any symptoms of *Phytophthora* infestation from the laboratory test. Among the palms, yellow leaf disease (YLD) affected palms showed comparatively higher side of dropping than healthy palms. The rise of temperature in summer and lack of water to irrigate the arecanut gardens, leads to moisture deficit, followed by one or two heavy rains may



Abnormal dropping of nuts at Sringeri

be the reason for triggering the dropping of nuts.

Ravi Bhat and Rajkumar

## Biotic balance to suppress minor pests of coconut

Insects sustain biotic balance in every ecosystem and coconut is no exception. Occurrence of the coconut scale insect, *Aspidiotus destructor* Sign. (Diaspididae : Hemiptera) was reported from an isolated garden near Kayamkulam, Kerala during July 2016 at moderate levels infesting leaves, spadix, nuts etc. Though a sporadic

outbreak kind of situation prevailed in the garden, it was suppressed all of sudden by the emergence of a natural ladybird predator, *Sasajiscymnus dwipakalpa* (Ghorpade) (Coccinellidae : Coleoptera). Immature stages of the beetle resembling a mealybug as well as the adult beetles voraciously fed on all the life stages

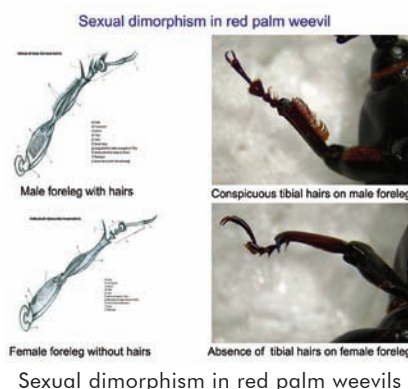
of *A. destructor* bringing down the pest population very significantly. A perfect co-existence of pest-predator linkage in coconut system thus creates a niche for minor pests remain at the same level unless intervened by mankind.

Chandrika Mohan and  
Josephraj Kumar, A



## Sexual dimorphism in red palm weevil

Presence of hairs on the snout as well as absence of pygidal hairs on the abdomen are considered as the characteristic features of male red palm weevil. In the recent study, presence of thick setae could be observed on tibia as well as femur of male red palm weevil. The hairs arranged on inner side on male tibia and femur is quite long and these extraneous growths of hairs could be involved in



copulation for effective clasping of females during the process of mating. Female weevils are absolutely devoid of these hairs. This unique occurrence of hairs on foreleg of adult male weevil involved in clasping females during copulation is reported for the first time in red palm weevil as a sexual dimorphic feature.

Anjali, A.S., Josephraj Kumar, A. and Chandrika Mohan

## Impact of changing rainfall pattern on coconut

Though coconut growing West Coast region receives high rain fall (>3000mm), its distribution is highly skewed. Analysis of rain fall data of 30 years (1985-2015) of Kudlu meteorological station, Kasaragod (west-coast high rainfall zone) revealed that 92% (3425.7mm) of the total rain fall received during South West monsoon (June to September) and North East monsoon (October to December) and the remaining period January-April receive very small amount of rainfall (monthly average rainfall of 3, 5.6, 16.0 and

38 mm during January, February, March and April respectively). The month of May receives an average rainfall of 220 mm as pre-monsoon showers. The data on rainfall distribution clearly indicated that the palms were subjected to severe moisture stress during the long dry spell. This stress situation adversely affected the palms which lead to the yellowing followed by drying and falling shedding of leaves. Further analysis of rain fall data for the current monsoon season revealed that there was a deficit of rain fall starting from June 2016 to

September 2016 and the difference ranges from 2.1 percentages to 53.8 percent. This will further aggravate the problems of the survival of coconut palm. Hence, it is necessary to adopt mitigation measures, soil and moisture conservation measures viz., mulching coconut basin, coconut husk burial in interspaces, half moon bund around coconut basin reinforced with pine apple, trench filled with coconut husk, catch pits, cover cropping etc. for mitigating the moisture deficit in coconut palms.

Ravi Bhat

Weather data of West Coast high rain fall region as recorded at Kudlu, Kasaragod during current monsoon season (June 2016 to September 2016).

Month	Wind speed (km/hr)			No of rainy days			Rain fall (mm)			
	Average (1985 to 2015)	2016	Difference	Average (1985 to 2015)	2016	Difference	Average (1985 to 2015)	2016	Difference	% difference
June	3.69	2.2	-1.49	24	25	+1	997.3	976.6	-20.7	2.1
July	3.02	1.8	-1.22	27	29	+2	897.2	724.0	-173.2	19.3
Aug	2.36	1.4	-0.96	24	26	+2	630.1	470.8	-159.3	25.3
Sept	2.33	1.68	-0.65	13	16	+3	279.0	129.0	-150.0	53.8

## IMPACT OF INSTITUTE TECHNOLOGIES

### Successful Kalparasa entrepreneurship

Mr. Koushik Ghosh (27) Bakulia, Hoogly District of West Bengal is a successful coconut farmer of this region. He is experienced on farming from his childhood as his father is also a successful farmer. In

an area of total 8.5 acres land, Mr. Koushik Ghosh has about 300 numbers of coconut palms, out of which about 200 are in bearing stage and age is about 16-35 years. Though he is a mango farmer, but after knowing about the Neera tapping from coconut he got interested. He obtained the technology from ICAR-CPCRI, Kasaragod with the help of BCKV, Kalyani. He



Mr. Koushik Ghosh, farmer from Hoogly, W.B. - successful Kalparasa venture



Paddy grown in coconut garden with ecological engineering interventions

has initiated collection of coconut inflorescence sap, Kalparasa from 20 palms. He is getting 1 liter sap per day per palm. From a single inflorescence he can collect sap for 20 days. Accordingly he can harvest 20 litre per palm per month. He is selling Kalparasa @ Rs. 60-80/- per liter. Six to eight inflorescence is tapped for neera collection per year. Mr. Ghosh stated that for 1 litre neera collection, Rs. 40/- is spent towards the cost of labour, ice, bottle, electricity and it is sold Rs. 70/- litre. Hence a net profit of Rs. 30/- is expected per day per palm. The return profit from neera was calculated to be Rs. 3600/- per palm/year. From 20 palms he could earn Rs.72000/- per year. Mr. Ghosh modified the neera collection box in his own way to reduce the cost of box. The cost of the box has come down to Rs. 600/- from Rs. 2800/- (purchased from Kerala).

## Ecological Engineering for rice pest management

In association with Krishi Bhavan, Udma, KVK Kasaragod has demonstrated ecological

engineering as one of the components in the Farm Field School on paddy cultivation at Bare village. Women Self Help Group (WSHG) was trained with different aspects of this technology and they were able to maintain the biodiversity of paddy ecosystem so as to keep the pests under control. Seedlings of marigold were planted around two bunds and it helped in the build-up of natural enemy population by providing pollen and nectar. Sesamum seeds were also sown in advance around the bunds in alternate strips and its flowers attracted natural enemies of paddy pests. Vetiver plants established in bags prior to paddy sowing/ transplantation were kept in one or two bunds and it served as trap crop for stem borers. Predators such as dragon flies, damsel flies, praying mantises and spiders were observed in large numbers as compared with other fields. Due to this, no pest incidence was recorded above threshold levels in the trial plot. By adopting this technique, farmer could save around Rs. 10,000/- besides environmental benefits. Moreover, they could get additional income through the sales of marigold flowers and vetiver roots.

## IMPORTANT EVENTS

### National Meet on “Prospects of Coconut Sector” and Kisan Mela-2016 at Kayamkulam

A National Meet on “Prospects of Coconut Sector” and Kisan Mela-2016 was organized at the Regional Station, Kayamkulam, Alappuzha of ICAR-Central Plantation Crops Research Institute, during 29-30 September, 2016.

Shri Radha Mohan Singh, Hon'ble Union Minister of Agriculture and Farmers' Welfare in his inaugural

address complimented the research achievements made by the ICAR-CPCRI and opined that low productivity and high labour wages are some of the problems presently faced by the coconut farmers. Minister emphasized the need for maintenance of soil health and informed that the Govt. of India is taking necessary steps to distribute soil health cards to all farmers in the country by 2017-18.

During the function, Hon'ble Minister launched the 'e-Kalpa', a digital initiative based on mobile app, for quick retrieval of ICAR-CPCRI technologies and user-friendly farm-problem diagnosis and remedial measures, besides two value-added products under the brand, 'Kalpa Krunch' and 'Kalpa Sugar'. He also released a book on "Production of Quality Planting Material in Coconut".

Hon'ble Minister planted a coconut seedling to mark the centenary celebrations and harvested a coconut bunch from a three year old Gudanjali Green Dwarf coconut palm. Hon'ble Minister also inaugurated a national level exhibition, which was organised as part of the celebrations.

Shri V.S. Sunil Kumar, Hon'ble Minister of Agriculture, Govt. of Kerala, in his keynote address, urged to consider coconut as a sensitive commodity and called for synergized research between central and state research organizations keeping 'Farmer First'. He informed the government's plan of establishing a chain of agro-parks to produce value-added products from agricultural produces in all districts of Kerala, of which four would be coconut-based parks. In order to coordinate various activities in this connection, a workshop is being planned towards the end of November 2016, he said. During the function he released a book on "Compendium of *Phytophthora* Diseases" as well as the Souvenir entitled "Gleanings of Coconut".

Shri K.C. Venugopal, Member of Parliament, Alappuzha presided over the function. He released a booklet on "Pictorial handbook on community based red palm weevil management of Coconut" in Hindi.

Earlier, Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod in his welcome address briefed about the recent research activities of the Institute and Dr. V. Krishnakumar, Head, ICAR-CPCRI, Regional Station, Kayamkulam proposed vote of thanks. Shri Raju Narayana Swamy, IAS, Agricultural Production Commissioner & Principal Secretary (Agriculture),



Shri Radha Mohan Singh, Hon'ble Minister for Agriculture, delivering inaugurating address during National Meet and Kisan Mela at ICAR-CPCRI, Regional Station, Kayamkulam



Release of souvenir during National Meet at ICAR-CPCRI, Regional Station, Kayamkulam

Shri Biju Prabhakar IAS, Director of Agriculture, Govt. of Kerala and Shri P.R. Muraleedharan, Member, Coconut Development Board also graced the function. About 3,500 farmers and other delegates attended the meeting.

An interface programme on arecanut production technologies sponsored by Directorate of Arecanut and Spices Development, Kozhikode was organized on 29<sup>th</sup> September, 2016 at ICAR - CPCRI, Kayamkulam as a part of the Kisan Mela. 700 stakeholders covering farmers, development officials, processors, college students had participated in the interface programme. Another seminar on advances in cocoa production technologies sponsored Directorate of Cashewnut and Cocoa Development, Kochi was organized on 30<sup>th</sup> September, 2016 at ICAR- CPCRI, Kayamkulam along with Krishi Mela. Around 550 stakeholders comprising of farmers, development officials, processors and college students participated in the seminar.

## Workshop on Coconut Based Business Ventures

Workshop on Coconut Based Business Ventures was held at ICAR-CPCRI, Kasaragod on 09<sup>th</sup> September 2016. The workshop was inaugurated by Dr. H.P. Singh, former DDG (Hort. Sci.) ICAR. Dr. P. Chowdappa, Director, ICAR-CPCRI delivered the presidential address. He emphasised on the significance of positioning coconut as a nutraceutical food through effective value addition technologies, and he also highlighted the crucial role Coconut Producer

Companies (CPCs) can play in commercializing the value added technologies of coconut. Dr. H.P. Singh, in his inaugural address said that the coconut farmers should be able to capture the changing market trends and accordingly change their production and marketing activities. He stressed the requirement of high quality products from coconut sector like Virgin Coconut Oil (VCO) and neera for the consumer. Guest of Honour Shri S. R. Satheeshchandra, President,



CAMPCO Ltd. In his speech highlighted the issues of decelerating commodity prices in the current liberalized trade regime and the importance of high competitiveness in marketing and value addition of the coconut products. Shri Sankaranarayana Bhat, Vice President, CAMPCO Ltd., Shri C. Kamraj, President, Federation of All India Coir and Coconut Manufacturers Association, Pollachi, offered felicitations. Subsequently, seven coconut producer companies presented their business plans. Dr. Manoj Samuel, Head, Engineering Division, ICAR-CIFT was the panel expert. Presentations from the Coir Board, District Industry Department, on the Prime Minister's Employment Generation Programme (PMEGP) for Entrepreneurship Development were held. In B2B meet, Mr. Krishnakumar, from CAMPCO, Mr. S. S. Choyal, Dy. Director, Coconut Development Board, Kochi, Dr. Ravi Bhat, Head, Division of Crop Production, CPCRI, Kasaragod made presentations.

A Session on Enhancing Competitiveness was chaired by Dr. K. Prakash, Agricultural Price Commissioner, Karnataka on 10<sup>th</sup> September, 2016 in which Shri C. Rajan, Chairman, Dinesh Foods, Kannur, Dr. Omkumar Krishnan, management expert from IIM-Kozhikode, Mr. Sibi Mathew, Magico Enterprise, Kasaragod, Shri Mahesh Bhat, Sri Kalpa Industries,



Dr. H.P. Singh, former Deputy Director General (Hort.) inaugurating the Workshop at ICAR-CPCRI, Kasaragod

Kumbla, Shri Dinesh, We & Co Carbon Pvt Ltd, Kangayam and Shri C.V.S. Das, Pilot Smith India Pvt Ltd., Thrissur, Shri Nagaraj, Pro B Products Pvt Ltd Bengaluru, Rajesh Kartha, CEO, ESSAR Techins, Kochi made presentations.

The valedictory session of the workshop was chaired by Dr. Narayana Gowda, Former Vice Chancellor, UAS Bangalore. He gave away the Dream Big Kalpa-Business Plan Competition 2016 prizes to Thejaswini Coconut Producers Company Pvt Ltd, Kannur, Perambra CPC Perambra, and Vinayaga CPC Devambady. The president launched a Whatsapp electronic group named "Kalpa" for the CPCs.

## National Seminar on 'Plantation Based Cropping System for improving Livelihood Security'

A National Seminar on 'Plantation Based Cropping System for Improving Livelihood Security' was held during 22-23 July 2016 at CPCRI, Kasaragod. Padma Shri Dr. K.L. Chadha, Formerly DDG (Hort.) ICAR, New Delhi inaugurated the Seminar and Dr. P. Rethinam, Formerly Executive Director, APCC, Indonesia was the Guest of Honor. Dr. P. Chowdappa, Director, ICAR-CPCRI chaired the inaugural session.



Dr. K.L. Chadha, former National Professor, ICAR, inaugurating the National Seminar at ICAR-CPCRI, Kasaragod

## Meeting on Market Intervention of Arecanut

A Meeting on 'Market Intervention of Arecanut' was held at ICAR-CPCRI, Kasaragod under the chairmanship of Dr. P. Chowdappa, Director. Dr. T.N. Prakash Kammardi, Chairman, Karnataka Agricultural Prices Commission, Bengaluru was the special invitee. Dr. H.P. Maheswarappa, Project Coordinator (Palms), ICAR-CPCRI, Kasaragod, Mr. Konkodi Padmanabha, President, Karnataka State Arecanut Marketing Cooperatives' Federation, Dr. K.J. Parameshwarappa, Karnataka Agriculture Prices Commission, Bengaluru, Mr. K. Manojkumar, Directorate of Arecanut and Spices



A meeting on market interventions of arecanut at ICAR-CPCRI, Kasaragod

Development, Kozhikode, Scientists from CPCRI, Kasaragod and Arecanut Research and Development Foundation, Mangaluru, participated in the meeting.

The officials from Areca Marketing Co-operatives' Federation, ICAR-CPCRI and KAPC presented the

production and cost aspects of arecanut. After the detailed deliberations and based on the insights of the stakeholders', the house computed the cost of production of dry arecanut kernel at Rs. 200 per kilogram.



## Workshop on Coconut Leaf Craft

As part of centenary celebrations of ICAR-CPCRI a workshop on coconut leaf craft was organized during 6-8<sup>th</sup> September, 2016 in collaboration with Folkland, Kasaragod and Indian National Trust for Art and Cultural Heritage. The workshop was inaugurated on 6<sup>th</sup> September by a well known art historian, Sri. K. K. Marar. In his inaugural speech, Sri K.K. Marar said that traditional coconut crafts were an integral part of our life, culture and identity. Unfortunately in the recent times vanishing of the coconut crafts, especially crafts made from the coconut leaves, was witnessed. Hence, redemption of the traditional coconut leaf crafts is a commitment to the coconut sector that helps us to highlight our ethnic identity. In this context, he emphasized the importance of research orientation towards improving the longevity of crafts made of coconut leaves. He also stressed upon the possibility of replacing plastics and other environment hazardous materials by processed coconut leaves. He urged that the society should promote the traditional decorations using coconut leaves and inflorescence. Introductory speech was given by Dr. V. Jayarajan, Chairman, Folkland, Kasaragod. In his remarks, he emphasized the important role played by the rural life. One hundred participants covering craft artists, scientists and other stakeholders participated in the



Workshop on coconut leaf crafts at ICAR-CPCRI, Kasaragod

workshop. An interaction with artists, scientists and students is also planned along with the workshop on 7<sup>th</sup> September, 2016. A seminar on coconut leaf and Kerala community: Art, rituals, crafts and sustainability was organized on 8<sup>th</sup> September, 2016. Dr. Shree Ram Shetty, Professor and Head, Department of Kannada, Mangalore University was the Chief Guest in the valedictory session. In his address, Dr. Shetty narrated the significance of reviving ancient art tradition including coconut leaf craft. Dr. P. Chowdappa, Director ICAR- CPCRI chaired the valedictory session.



## Kalpa Coconut Sugar, Kalpa Bar Dark Chocolate and Kalpa Drinking Chocolate launched

'Kalpa Coconut Sugar' a ICAR-CPCRI product and 'Kalpa Bar Dark Chocolate' and 'Kalpa Drinking Chocolate' a joint venture between ICAR - CPCRI and The Central Arecanut and Cocoa Marketing and

Processing Co-operative Limited (CAMPCO) were launched in Vigyan Bhavan, New Delhi on July 16, 2016 on the occasion of 88<sup>th</sup> ICAR Foundation Day, Krishak Goshthi and ICAR Award Ceremony by Shri Radha





Kalpa Chocolate Bar

## Cocoa Seminar

District level seminar on 'Prospects of Cocoa cultivation in Palm Based Cropping Systems' on 07<sup>th</sup> September, 2016 at ICAR-CPCRI, Regional Station, Vittal, Karnataka with the sponsorship from Directorate of Cashew and Cocoa Development (DCCD), Cochin. About 168 participants (Farmers + Officials) attended the seminar. The seminar was inaugurated by Shri Konkodi Padmanabha, Director and Ex-President, CAMPCO, Mangalore. In his inaugural speech, he stated that 'cocoa production should be increased

Mohan Singh, Union Agriculture and Farmers Welfare Minister in the presence of Shri S.S. Ahluwalia, Union Minister of State for Agriculture & Farmers Welfare and Parliamentary Affairs; Shri Parshottam Rupala, Union Minister of State for Agriculture & Farmers Welfare and Panchayati Raj; and Shri Sudarshan Bhagat, Union Minister of State for Agriculture & Farmers Welfare, Dr. Trilochan Mohapatra, Secretary, DARE and DG, ICAR, Shri Chhabilendra Roul, IAS, Additional Secretary, DARE and Secretary, ICAR, Shri Sunil Kumar Singh, Additional Secretary & Financial Advisor (DARE/ICAR).

to meet the increasing demands. To control the price volatility more value added products should come out and appropriate regulation of price will help the farmers'. He also told that farmers should be trained on processing technologies to produce the good quality beans for getting premium price. Shri Krishna Prasad, Progressive Farmer as felicitated during the inaugural function. He shared his experience in cocoa cultivation. Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod, presided over the function.

## Surveillance Squad Training

One day training cum refresher course on "Recent trends in plant health management with special emphasis on emerging and invasive pests and diseases of palms and cocoa" was organized on 15<sup>th</sup> July 2016 for surveillance squad of ICAR-CPCRI, Kasaragod, ICAR-CPCRI, RS, Vittal and CPCRI RC Kidu at the Headquarters. A total of 22 staff attended the course. The training module comprised upcoming issues and challenges pertaining to pest and disease problem in

palms and cocoa, eco-friendly management of pests of palms and cocoa, emerging pests of cocoa and arecanut, diagnosis and management, foliar mite on arecanut and its management, integrated management of diseases in arecanut with a special emphasis on *Phytophthora* diseases and *Ganoderma* diseases, wilt disease complex in cocoa, plant parasitic nematodes associated with coconut based cropping systems and nutrient deficiency disorders in palms and cocoa.

## Institute Management Committee Meeting

A meeting of the IMC was held under the chairmanship of Dr. P. Chowdappa, Director on 28<sup>th</sup> July, 2016 at ICAR-CPCRI, Kasaragod. Dr. V.S. Devadas, Director of Research I/c, KAU, Vellanikkara, Dr. Roy Mathew, Addl. Director of Agriculture, Govt. of Kerala, Thiruvananthapuram, Dr. H.P. Maheswarappa, Project Coordinator (Palms), ICAR-CPCRI, Kasaragod, Dr. Anitha, Karun, Head, Crop Improvement, ICAR-CPCRI, Kasaragod, Shri Suresh Kumar, Chief Administrative Officer, CPCRI, Kasaragod, were present. Programmes and achievements of CPCRI were presented before the IMC. Action taken on the previous agenda items and fresh agenda were discussed and appropriate decisions were taken.



A meeting of the Institute Management Committee at ICAR-CPCRI, Kasaragod

## Interactive Meet on Quality Planting Material Production

An interactive meet on "Quality planting material production" was organized at ICAR-CPCRI Research

Centre Kidu on 20<sup>th</sup> September, 2016. Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod



Dr. P. Chowdappa, Director, ICAR-CPCRI, inaugurating the meet at ICAR-CPCRI, Research Centre, Kidu

was the chairman of the interactive meet, which was presided by Smt. Sharadha, President, Village

Panchayat Bilinele, Sh. Devaraj, K. S., Director, Dist. DCC Bank was the chief guest. More than 140 farmers of surrounding region participated in the meet.

Dr. P. Chowdappa, Director, ICAR-CPCRI Kasaragod in his key note address highlighting the efforts taken by ICAR-CPCRI Kasaragod towards upliftment of the planting materials production sector by contributing in terms of high yielding varieties/hybrids and transfer of advanced production and protection technologies. Comprehensive and exhaustive discussions among the accomplished farmer participants and scientists, the importance of quality planting materials, their selection criteria, nursery techniques and solutions to other practical issues of coconut, arecanut and cocoa farming was held.

## HUMAN RESOURCES DEVELOPMENT

### Training attended

Name & Designation	Training Programme	Place & Duration
Ms. T.N. Ranjini, Ms. M. Suchithra and Mr. R Thava Prakasa Pandian, Scientists	Professional attachment training	ICAR- IISR, Kozhikode 12-05-2016 to 11-08-2016
Ms. Jilu. V. Sajan		ICAR-IIHR, Bengaluru 11-05-2016 to 10-08-2016
Mr. Pandiselvam		ICAR-CIFT, Kochi 11-05-2016 to 10-08-2016
Ms. Saneera E.K.		ICAR-NBAIR, Bengaluru 11-05-2016 to 10-08-2016

### Awards / Honours



Shri V.S. Sunil Kumar handing over award to Dr. Regi Jacob Thomas

Dr. Regi Jacob Thomas, Principal Scientist received a citation and memento from Shri V.S. Sunilkumar, Hon'ble Minister of Agriculture Development & Farmers' Welfare, Government of Kerala for his meritorious service as member of State Agricultural

Award Evaluation Committee during the Farmers Day celebration & Award Distribution ceremony organized at Town Hall, Palakkad on 16<sup>th</sup> August 2016.

Mrs. Jissy George (Subject Matter Specialist-Home Science) of KVK-Alappuzha was felicitated by Jackfruit Promotion Council, Kerala for her efforts to popularize and promote the prospects of value addition of jackfruit and entrepreneurship in jackfruit based products through trainings, seminars and technical facilitations as a part of KVK activities. She was honoured by Shri V.S. Sunilkumar, Hon. Minister of Agricultural Department and Farmers' Welfare, Govt. of Kerala on the occasion of the Jackfruit Promotion Campaign jointly organized by Jackfruit Promotion Council, Small Farmers Agribusiness Consortium and Centre for Innovation in Science & Social Action which was held at Vizhinjam on 20-07-2016.

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## TRANSFER OF TECHNOLOGY

### Training programmes

- At ICAR-CPCRI, Kasaragod more than 10 training programmes were conducted during the period, which include ATMA interstate training on "Integrated crop management and value addition in coconut" for 44 farmers from Salem/Dharmapuri Dist, Tamil Nadu held during 12- 14 July 2016 for 20 farmers from Erode, Tamil Nadu held during 19-20 July 2016, for 20 farmers from Tirupur, Tamil Nadu held during 27-29 July 2016 and for 40 farmers from Sivagangai Dist, Tamil Nadu held during 4-5 August 2016.
- A training on 'Coconut production technologies' for 25 farmers of Shivamogga, Karnataka was held during 24-25 July 2016. Training on 'Value addition



Inter-state trainees from Tamil Nadu interacting with experts at ICAR-CPCRI, Kasaragod

in coconut' for Coimbatore district farmers during 5-6 August, 2016.

An exposure visit -cum- training on coconut production technology for stockmen trainees (40 nos.), Goa, was held on 08-08-2016. RAWE programme for B. Tech (Food Technology) students of Hassan College, University of Agricultural Sciences, Bengaluru was held on 16<sup>th</sup> September, 2016. Training programme for the technical personnel of the department of agriculture in connection with 'Soil Health Card' under 'National Mission on Sustainable Agriculture' during 26-30 September 2016.

A hands on training in "Soil Testing for Sustainable Agriculture" was organized for 16 Agricultural Officers/Technical Personnel of the Department of Agriculture was conducted at ICAR-CPCRI, Kasaragod during 26-30<sup>th</sup> September, 2016 in connection with distribution of 'Soil Health Card' to farmers under 'National Mission on Sustainable Agriculture'.



Dr. P. Chowdappa, Director, ICAR-CPCRI, inaugurating the training at ICAR-CPCRI, Kasaragod

A training programme on "Cocoa cultivation and processing technique" was conducted at Kahikuchi on 2<sup>nd</sup> July, 2016 for departmental officers where 11 participants have attended from various districts of Assam.

Training on "Crop Diversification in plantation garden with Spices" was organized on 10<sup>th</sup> August, 2016 at ICAR-CPCRI, Research Centre, Mohitnagar. A total 40 farmers attended the training programme. Another training on "Scientific Black pepper cultivation" was organized on 22<sup>nd</sup> September, 2016 at ICAR-CPCRI, Research Centre, Mohitnagar for 43 numbers of women farmers.

### Off - campus training programmes

A participatory Rural Appraisal (PRA) was conducted in Bharanikavu Panchayat on 12<sup>th</sup>, 19<sup>th</sup>, 23<sup>rd</sup> July, 2016 and 8<sup>th</sup> August, 2016. Social and resource mapping, problem cause analysis and time line analysis were undertaken by the key informants of the Panchayat. Selection of superior mother palms as part of decentralized seedling production was also held as a part of this programme.

Organized training programme on 'Good agricultural practices of coconut and its value addition for profitable coconut farming/ demonstrations on extraction of Kalparasa' at ICAR-CPCRI, Kasaragod on 23<sup>rd</sup> September, 2016. Around 120 farmers from the Karkala, Kundapura and Udupi taluk of Karnataka were participated.



A view of the visiting farmers interacting with Dr. P. Chowdappa, Director at ICAR-CPCRI, Kasaragod



Farmers from Andhra Pradesh visit coconut based high density multi species cropping system plot



A programme on “Management practices for bud rot and ganoderma diseases of arecanut” was held on 14<sup>th</sup> July, 2016, in which 35 farmers attended at Dudhnoi village of Goalpara district of Assam.

A programme on “Crop Diversification in plantation garden with Spices” was organized on 30<sup>th</sup> July, 2016 at Jaldhaka (sub Himalayan Terai Region, Darjeeling District of West Bengal. A total 45 farmers attended the training programme.

Another training programme on “Scientific Arecanut Cultivation” was organized on 27<sup>th</sup> August, 2016 at Samsing (sub Himalayan Terai Region), Darjeeling District of West Bengal. A total 50 farmers attended the programme.

### ATMA training programme

Farmers from Kanyakumari district (Thiruvattar, Munchirai & Killiyoor), Tamil Nadu were imparted orientation training at ICAR-CPCRI, RS, Kayamkulam, on advances in coconut farming including visits to experimental plots on 03-08-2016, 17-08-2016 and 23-08-2016, respectively.

More than 500 farmers from different blocks of Jalpaiguri and Coochbehar district visited CPCRI, RC, Mohitnagar on Exposure visit under ATMA scheme. Discussion was made on plantation crops and plantation based cropping system.

### Diagnostic field visits

A scientific team visited Pollachi, Tamil Nadu on 1<sup>st</sup> September, 2016 to assess the health status of palms in the region. Coconut gardens were surveyed for the incidence of pests and diseases and other problems in coconut. General problems observed in the coconut gardens are, leaf blight, basal stem rot, pencil point disease, bud rot, coconut root (wilt), rhinoceros beetle, red palm weevil, etc. Suitable recommendations were given to the farmers to manage pests and diseases in the region.

### Exhibition

Exhibition stall of ICAR- CPCRI was arranged at Minnal Mahal, Pollachi, Coimbatore on 02-09-2016

in connection with World coconut day celebrations. Large number of stakeholders visited the stall and got familiarized with CPCRI technologies.

Exhibition stall of ICAR-CPCRI was arranged during 29-30 September, 2016 at ICAR- CPCRI, Regional Station, Kayamkulam in connection with National Meet on Prospects of coconut sector and Krishi Mela.

### Radio talks / TV programme broadcast

An agricultural quiz programme for the farmers was held on 19<sup>th</sup> August, 2016 in connection with the 50<sup>th</sup> anniversary of ‘Farm and Home’ (Vayalum Veedum) programme of All India Radio at AIR, Kannur.

Shri Sivakumar T., ACTO, attended the live phone-in programme on “Management practices for coconut farming during this season” in AIR, Thiruvananthapuram on 15<sup>th</sup> July, 2016.

Smt. Lekha G., ACTO, attended “Karshakavedi programme” in AIR, Thiruvananthapuram - broadcasted on 28<sup>th</sup> July, 2016.

Documentary on Krishi Vigyan Kendra Alappuzha broadcasted on 20<sup>th</sup> September, 2016 in AIR, Thiruvananthapuram.

Dr. P. Anithakumari, Principal Scientist served as the Quiz Master for the district level farmers quiz programme conducted in connection with the jubilee celebrations of All India Radio, Trivandrum at Gandhi Bhavan, Pathanapuram on 428<sup>th</sup> August, 2016.

Dr. Merin Babu, Scientist (Plant Pathology) delivered a radio talk on ‘Management of diseases of coconut’ broadcasted by All India Radio, Thiruvananthapuram on 628<sup>th</sup> September, 2016.

Dr. Jeena Mathew, Scientist (Soil Science) delivered a talk on ‘Integrated nutrient management for coconut’ broadcasted by All India Radio, Thiruvananthapuram on 28<sup>th</sup> September, 2016.

## NERA GAON – NERA GAURAV

ICAR- CPCRI, Kasaragod and its regional stations and research centres have implemented the MGMC initiative in collaboration with other stakeholders viz., Department of Agriculture, Krishi Vigyan Kendra, grama panchayat, input dealers, progressive farmers, SHGs etc. During July - September 2016, training

programmes, demonstration on improved practices, farm advisory visits, mobile advisory services were organized in the selected villages for the benefit of farming community. A total of sixty scientists adopted sixty six villages for the overall development of the villages as given overleaf:

Venue	No of scientists	No of adopted villages	No. of training programmes / meetings organized	No of farmers benefitted
ICAR-CPCRI, Kasaragod	32	34	19	475
ICAR-CPCRI, RS, Kayamkulam	13	16	13	345
ICAR-CPCRI, RS, Vittal	9	9	8	224
ICAR-CPCRI, RC, Kahikuchi	4	4	4	115
ICAR-CPCRI, RC, Mohitnagar	2	3	2	107
Total	60	66	46	1266



Farmers' meeting at Badiadka



Demonstration on cocoa pruning at Kunjar, Badiadka



Interface programme at Kootakkani



Method demonstration on cocoa pruning at Berike



Farm advisory visit to Miyapadavu



Farm advisory visit to Periya





Scientist – farmer interface at Panayal



Interface programme at Panayal



Shri K.C. Venugopal, M.P., Alapuzha addressing the interface programme at ICAR- CPCRI, RS, Kayamkulam



Farm advisory visit to Cherthala South



Shri K.C. Venugopal, M.P., Alapuzha handing over bio-primed coconut seedling to progressive farmer



Interface programme at Matiali, West Bengal

## KVK, KASARAGOD

The Krishi Vigyan Kendra had conducted 27 on campus, off campus and vocational training programmes to farmers, farm women and entrepreneurs during July to September 2016.

Sl.No.	Farmers	Farm women	Total
On campus	103	143	246
Off campus	232	223	455
Vocational	145	47	192
Total	480	413	893

## On farm trials

KVK has initiated 5 OFTs during the year. Eco friendly Management of rhinoceros beetles in coconut in an area of 3 ha at three locations of Mangalpady and Mogral Puthur Panchayaths, performance evaluation of dwarf varieties of coconut such as Kalparaksha, Kalpa Jyothi, Kalpa Surya and Kalpasree with Chowghat Orange Dwarf (COD) as control in Mangalpady panchayath, Assessment of ITK and Boarep against the management of wild boar in Mogral Puthur, Badiadka, Chengala and Kuttikkol panchayaths, Assessment of effectiveness of micronutrient in Karadka Panchayath, value

addition of Nutrimix powder with coconut sugar were undertaken.

### Frontline Demonstrations

FLDs on Introducing greater yam, *Dioscorea alata* (variety – Sree Keerthi) in homesteads, introducing lesser yam, *Dioscorea esculenta* (variety – Sree Latha) in homesteads, introduction of fodder grass variety CO5, introduction of Short duration cassava variety Vellayani Hraswa, demonstration of HYV of turmeric Prathibha, management of soft rot and nutritional deficiencies in ginger, effect of seed treatment and soil application of *Pseudomonas fluorescens* against ear-head disease of paddy, promotion of upland paddy were carried out.

## KVK, ALAPUZHA

### Trainings/ Meetings conducted

Training	No. of Programmes	Participants		
		Men	Women	Total
On campus	5	56	35	109
Off campus	18	183	312	495
Sponsored	1	21	41	62
Total	24	260	406	666

Project formulation meeting on “Promotion of Jackfruit value chain” for which funds earmarked in the revised Kerala budget (2016 – 17) was conducted on 31<sup>st</sup> August, 2016 with the participation of experts, entrepreneurs and other stakeholders.

### Launching of activities

Mannanchery and Mararikulam South Grama panchayaths of Alapuzha district have been selected as the operational area for implementing various activities of KVK Alapuzha viz. farmer participatory On Farm Testing, Frontline Demonstrations, Training programmes, Farmer Field School and Extension activities during 2016-17. The launching programme of these activities was inaugurated by Dr. T.M. Thomas Isaac, Hon’ble Minister for finance, Govt. of Kerala on 30<sup>th</sup> July, 2016 at Aryad Block Panchayath hall. The Hon. Minister, in his address, shared ideas to embark the jackfruit promotion programme utilising the fund allocated in the revised Kerala budget (2016-17). About 200 persons including farmers, Grama Panchayath Members, Officers of the line departments, and Kudumbasree attended the programme.



Dr. T.M. Thomas Isaac, Hon’ble Minister for Finance, Govt. of Kerala inaugurating the programme at Aryad, Kerala

On this occasion a seminar cum interface on “Organic management of Pests and Diseases of Crops” was organized. Dr. C.A. Jayaprakas, Principal Scientist and Head, Division of Plant Protection, ICAR-Central Tuber Crops Research Institute, Thiruvananthapuram.

### Scientific Advisory Committee meeting of KVK, Alappuzha

The fifteenth scientific advisory committee meeting of Krishi Vigyan Kendra –Alappuzha was conducted on 31<sup>st</sup> August, 2015. The meeting was chaired by Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod. Dr. S. Estelitta, Director of Extension, Kerala Agricultural University, Dr. C. V. Sairam, Principal Scientist, Zonal Project Directorate, Bangalore, Dr. V. Krishnakumar, Head, CPCRI, RS, Kayamkulam, Dr. C Thampan, Acting Head, Division of Social Science, ICAR-CPCRI, Project Director & Head, ORARS, Kayamkulam Deputy Project Director - ATMA, Alappuzha, Officials from line departments, NABARD, SBT, Kudumbashree, DIC; farmer representatives and Head, KVK –Pathanamthitta attended the meeting. Dr. P. Muralidharan, Principal Scientist & Head, KVK- Alappuzha presented the action taken report of 14<sup>th</sup> SAC meeting and achievements for 2015-16. Subject matter specialists presented the salient achievements for the last one year. Review on the activities and achievements of the previous year and suggestions for future activities were made by the members for effective functioning of KVK.

### Field Experience Training (FET) conducted

Seven scientists belonging to the 104<sup>th</sup> batch of FORCAS at ICAR – NAARM were attached to KVK – Alappuzha for their field experience training from 09<sup>th</sup> to 29<sup>th</sup> August, 2016. They have conducted a detailed study of the Bharanikkav panchayath by interacting with the stakeholders and prepared a Village Agriculture Development Plan as part of their training.



## COMMERCIALIZATION OF TECHNOLOGY



Exchange of MoA on Nanomatrix delivery of pheromone at Kayamkulam by Shri Radha Mohan Singh, Hon'ble Minister for Agriculture and Farmers Welfare

Details of technology commercialization are listed below:

Technology title	Lisensee	Amount(Rs.)
Nanomatrix for delivery of pheromone (Jointly developed technology of CPCRI & JMCASR)	M/s Rajshree Biosolutions LLP, Periyakulam. Tamil Nadu	3,00,000
Production of virgin coconut oil (VCO)	M/s Oam Merchandize, Anna Nagar West, Chennai	25,000
	Smt. Jyothi Kanumuri, Miyapur, Hyderabad	25,000
	M.S. Ganesh Kumar, M/s Zeus Industries Private Limited, Kurnool District, Andhra Pradesh	25000
	Smt. Karatt Sarojani, Koodali, Kannur	25000
	M/s Phalada Agro Research Foundation Pvt Ltd, Magadi Main Road, Bangalore	25000
	M/s Biogen, Kumta, Karnataka	40,000
	Smt. Yamuna Ranjith, Kozhikode, Kerala	40,000
Coconut chips	Smt. Jyothi Kanumuri, Miyapur, Hyderabad	10,000
	M.S. Ganesh Kumar, M/s Zeus Industries Private Limited, Kurnool District, Andhra Pradesh	10000
	Mr. Usman, Vidyanagar, Kasaragod	10000
	Smt. Karatt Sarojani, Koodali, Kannur, Kerala	10000
	M/s Phalada Agro Research Foundation Pvt Ltd, Magadi Main Road, Bangalore	10000
	Smt. G. Gomathi, Namakkal, Tamilnadu	15000
	Smt. Yamuna Ranjith, Kozhikode, Kerala	15,000
Collection of fresh and hygienic Kalparasa and production of natural coconut sugar	M/s Phalada Agro Research Foundation Pvt Ltd, Magadi Main Road, Bangalore	10000
	Dr. K. Narayana Gowda, Chairman, Kunigal Thaluk Coconut Producers Company Limited, Karnataka	15,000
	Kalpavrutta Coconut Producer Company Ltd, Chitradurga District, Karnataka	15,000
Preservation of carbonated tender coconut water	Shri Sahil Kumar, Bokaro, Jharkhand	25000
	Total	6,50,000

## PARTICIPATION IN SEMINARS/SYMPOSIA/CONFERENCES/WORKSHOPS

Name and designation	Title	Place and date
Dr. P. Chowdappa, Director	Scientist - Farmer interface	Kayamkulam 13 <sup>th</sup> July 2016
	World Coconut Day	Bhubaneswar 2 <sup>nd</sup> September, 2016
	Kisan Mela and National meet on prospects of coconut sector in India	Kayamkulam 29 <sup>th</sup> September, 2016
Dr. P. Chowdappa, Director, and Dr. K.B. Hebbar, Head	Group discussion on neera based sweets and Felu Modak sweets	Kolkatta 7 <sup>th</sup> July, 2016
Dr. P. Chowdappa, Director, Dr. H.P. Maheswarappa, Project Coordinator, Dr. (Mrs.) Anitha Karun, Dr. Ravi Bhat, Dr. Vinayaka Hegde, Dr. K.B. Hebbar, Dr. C. Thamban, Dr. K. S. Ananda, Dr. V. Krishnakumar, Heads, Dr. (Mrs) Alka Gupta, Dr. P. Subramanian, Dr. Murali Gopal, Pr. Scientists, Dr. Paul Raj, Sr. Scientist, DR. K. Nihad, Dr. Rajkumar, Dr. V. Selvamani, Dr. D. Jaganathan, Dr. Karthika. K.S., Ms. Bhavishya, Mrs. Surekha, Ms. Sumitha S., Mrs. Panjavarnam G. and Dr. Neenu S., Scientists	National Seminar on "Plantation based cropping system for improving livelihood security"	ICAR-CPCRI, Kasaragod 22-23 July, 2016
Dr. P. Chowdappa, Director, Dr. H.P. Maheswarappa, PC Palms, Dr. Anitha Karun, Dr. Ravi Bhat, Dr. Vinayaka Hegde, Dr. C.Thamban, Dr. K.B. Hebbar, HODs, Dr. K. Muralidharan, Dr. A.C. Mathew, Dr. P. Subramanian, Dr. Murali Gopal, Dr. K. Samsudeen, Pr. Scientists, Dr. Chandran. K. P, Dr. M.R. Manikantan, Sr. Scientist, Mr. S. Jayasekhar, Scientist (Sr. Scale), Dr. Jaganathan, Dr. V.H. Prathibha, Dr. Shameena Begum, Dr. Pandiselvam and Dr. Manmohan Deo, Scientists	Workshop on "'Coconut Based Business Ventures"	ICAR-CPCRI, Kasaragod 9- 10 September, 2016
Dr. P. Chowdappa, Director, Dr. H.P. Maheswarappa, Project Coordinator (Palms), Dr. V. Krishnakumar, Head, ICAR-CPCRI, RS, Kayamkulam, Dr. Vinayaka Hegde, Head, Division of Crop Protection, Dr. Chandrika Mohan. PS, Dr. A. Joseph Rajkumar, PS, Dr. PS. Prathibha, Scientist, Dr. Sivaji Thube, Scientist	Group Meeting of coconut Entomologists	ICAR-CPCRI, Regional Station, Kayamkulam 13 <sup>th</sup> July, 2016
Dr. P. Chowdappa, Director, Dr. H.P. Maheswarappa, Project Coordinator (Palms), Dr. C. Thamban, Head, Dr. K. Muralidharan, Dr. Anitha Karun, Head, Dr. K.B. Hebbar, Head, Dr. Ravi Bhat, Head, Dr. A.C. Mathew, PS, Dr. Manikantan, SS, Dr. M. Jaganathan, Scientist, ICAR-CPCRI, RS, Kayamkulam Dr. V. Krishnakumar, Head, Dr. S. Kalavathi, PS, Dr. Chandrika Mohan, PS, Dr. P. Anithakumari, PS, Dr. A. Abdul Haris, PS, Dr. V.K. Chaturvedi, SS, Dr. Regi. J. Thomas, PS, Dr. A. Joseph Rajkumar, PS, Dr. P. Muralidharan, PC, Dr. Merin Babu, Dr. M. Shareefa, Dr. K. Nihad, Dr. Jeena Mathew, Dr. S. Indhuja, Scientists	National Meet on Prospects of Coconut Sector and Kisan Mela 2016	ICAR-CPCRI, Regional Station, Kayamkulam 29-30 September, 2016
Dr. C. Thamban and Dr. Vinayaka Hegde, Heads, Dr. Joseph Rajkumar, Principal Scientist and Dr. D. Jaganathan, Scientist	World Coconut Day and Interface programme on Crop management and value addition in coconut	Pollachi, Coimbatore 2 <sup>nd</sup> September, 2016

## NEW PROJECTS

A project on "Consortium Research Platform (CRP) on Farm Mechanization and Precision Farming has been sanctioned from ICAR-Central Institute of Agricultural Engineering, Bhopal" to ICAR-CPCRI, Research Centre, Kahikuchi, Assam with an outlay of Rs. 10 lakhs. Dr. L.S. Singh, Scientist is the Principal Investigator.

A project on Arecanut Power Sprayer has been sanctioned from Kerala State Science, Technology and Environment (TC-TDAP) to ICAR-CPCRI, Kasaragod with an outlay of Rs. 5,41,200/-. Dr. A.C. Mathew,

Principal Scientist (SWC Engg.) is the Principal Investigator.

A Rashtriya Krishi Vikas Yojana (RKVY) project on "Mass production of plant growth promoting imicrobes and bio-control agents for sustainability of coconut based farming system" has been sanctioned from Govt. of Kerala to ICAR-CPCRI, Kasaragod with an outlay of Rs. 80.00 lakhs. Dr. Vinayaka Hegde, Principal Scientist (Pathol) and Head (Crop Protection) is the Principal Investigator.

## SWACHH BHARAT CAMPAIGN

At CPCRI Headquarters, Regional Stations & Regional Centres, one hour in every Friday has been earmarked for Swachh Bharat Movement

by all the staff. Public places adjoining CPCRI campus are kept clean through these activities.

## CELEBRATIONS

### Independence Day

The Institute has celebrated 70<sup>th</sup> Independence day of our country with tradition and patriotism. Dr. P. Chowdappa, Director hoisted the National Flag and delivered Independence Day speech at Kasaragod on



Dr. P. Chowdappa, Director, ICAR-CPCRI, delivering independence day speech

15-08-2016. Independence Day was also celebrated in the Regional Stations at Kayamkulam, Vittal and Research Centres at Kahikuchi, Kidu, Minicoy and Mohitnagar.

### World Coconut Day celebrations

World coconut day celebration was conducted in Minnal Mahal at Pollachi on 02-09-2016. Hon'ble Member of Parliament, Sri Mahendran inaugurated the programme and assured to take the problems of coconut farmers at National level. The meeting was organized by Coimbatore Coconut Producers Company and Vinayaka Coconut Producers Company, Pollachi in collaboration with ICAR- CPCRI, Kasaragod. Dr. C. Thamban, Head and Dr. Vinayaka Hegde, Head offered felicitations to take the coconut sector forward through price stability, organic recycling of residues, cropping system approach and value addition



Dr. C. Thamban, Acting Head, Division of Social Sciences, ICAR-CPCRI addressing the Coconut Day gathering at Pollachi, Tamil Nadu



techniques. Though production has attained a plateau in the region, product diversification is at infancy. Dr. A. Joseph Rajkumar highlighted the strategies for root (wilt) disease management through cultivation of tolerant varieties and nutritional management. Dr. Ramasamy, Vice-chancellor, TNAU offered his views on traditional approaches in coconut farming and water conservation strategies. Several dignitaries emphasized on the potential of coconut for livelihood sustainability. The meeting culminated with a debate on usefulness of coconut for the survival of mankind. ICAR-CPCRI has participated in the exhibition and displayed the key technologies on value addition for the benefit of participating farmers. The meeting was attended by over 1200 farmers.

### Hindi Implementation

Hindi Workshop on 'Official Terminology' and 'Hindi Noting and Drafting' was conducted on 23rd August, 2016 under the auspices of Town Official Language Implementation Committee (TOLIC), Kasaragod. Dr. Seema Chandran, Assistant Professor, Department of Hindi, Central University of Kerala as a resource person. Half yearly meeting of TOLIC, Kasaragod, under the chairmanship of Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod on 26th August, 2016. Dr. Narendra Mehra, Asst. Director (Implementation), Regional Implementation Office, Kochi was present.



Half yearly meeting of TOLIC, Kasaragod at ICAR-CPCRI, Kasaragod

Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod inaugurated Hindi Celebrations on 5th September, 2016 at ICAR-CPCRI, Kasaragod. Dr. Seema Chandran, Assistant Professor, Department of Hindi, Central University of Kerala was the chief guest. Hindi week was celebrated from 14th to 20th September, 2016 at Research Centre Mohitnagar. Discussion on Hindi as Official Language was made to make aware to the staff regarding the importance of Hindi language. Different types of competition were organized among the staff. Prizes were distributed to the staff.

## DISTINGUISHED VISITORS

Shri Radha Mohan Singh, Hon'ble Union Minister of Agriculture and Farmers Welfare, Govt. of India, Shri V.S. Sunilkumar, Hon'ble Minister of Agriculture Development and Farmers Welfare, Govt. of Kerala, Shri Raju Narayana Swamy, IAS, Agricultural Production Commissioner & Principal Secretary (Agriculture), Shri Biju Prabhakar, IAS, Director,

Agriculture Development and Farmers Welfare, Govt of Kerala and Shri P.R. Murali, Member, Farmer's representative, Coconut Development Board visited ICAR-CPCRI, Regional Station, Kayamkulam on 29<sup>th</sup> September, 2016 and participated in the National Meet on Prospects of Coconut Sector and Kisan Mela 2016.

Name and designation	Date	Place visited
Padma Shri Dr. K.L. Chadha, Former Deputy Director General (Hort.) and Dr. P. Rethinam, Former Executive Director, APCC, Indonesia	22-07-2016 to 23-07-2016	ICAR-CPCRI, Kasaragod
Dr. T.N. Prakash Kammardi, Chairman, Karnataka Agricultural Prices Commission, Bengaluru	19-08-2016	ICAR-CPCRI, Kasaragod
Dr. H.P. Singh, Former Deputy Director General (Hort.)	09-09-2016	ICAR-CPCRI, Kasaragod
Shri Anantkumar Hegde, M.P. Uttara Kannada, Karnataka	23-09-2016	ICAR-CPCRI, Kasaragod

## OTHER INFORMATION

A tractor shed was constructed by lakhs at ICAR-CPCRI, Reasearch Centre, CPWD with a cost of Rs. 5.09 Mohitnagar.

## PERSONALIA

### PROMOTION

Name of the staff	From (Designation)	To (Designation)	w.e.f.
Ms. K.T.K. Sheenakumari	UDC, ICAR-CPCRI, Kasaragod	Assistant, ICAR-CPCRI, Kasaragod	05-07-2016
Shri P. Narayana Naik	UDC, ICAR-CPCRI, Kasaragod	Assistant, ICAR-CPCRI, Kasaragod	14-07-2016
Shri K. G. Bhageerath	Assistant, ICAR-CPCRI, Kasaragod	Asst. Administrative Officer, ICAR-CPCRI, Kasaragod	01-09-2016
Smt. M. Reetha	Assistant, ICAR-CPCRI, Kasaragod	Asst. Administrative Officer, ICAR-CPCRI, Kasaragod	08-09-2016

### TRANSFER

Name of the staff	From (Place)	To (Place)	w.e.f.
Shri K. Devadas	ACTO, ICAR-CPCRI, Kasaragod	ACTO, ICAR-CPCRI, RC, Minicoy	02-08-2016
Shri A.O. Varghese	ST (Field/Farm) ICAR-CPCRI, RS, Kayamkulam	ST (Field/Farm) ICAR-CPCRI, Kasaragod	02-08-2016
Dr. Saran Kumar Rizal	CTO (Farm), ICAR-CPCRI, Kasaragod	CTO (Farm), ICAR-CPCRI, RC, Kahikuchi	12-08-2016
Shri N. Ramakrishnan	Sr. Technical Officer (Farm), ICAR-CPCRI, RS, Vittal	Sr. Technical Officer (Farm), ICAR-CPCRI, Kasaragod	16-08-2016
Shri N. Reghu	SSS, ICAR-CPCRI, RC, Minicoy	SSS, ICAR-CPCRI, RS, Kayamkulam	16-08-2016
Ms. Keerthana Umapathy	Scientist (Plant Pathology). ICAR-CPCRI, RS, Vittal	Scientist (Plant Pathology) ICAR-CPCRI, Kasaragod	18-08-2016
Shri P. Ravindran	ACTO, ICAR-CPCRI, RC, Minicoy	ACTO, ICAR-CPCRI, Kasaragod	18-08-2016
Shri K. Raghavan	Skilled Support Staff ICAR-CPCRI, RS, Kayamkulam	Skilled Support Staff ICAR-CPCRI, Kasaragod	24-08-2016
Dr. Bikash Chowdhury	ACTO (Farm), ICAR-CPCRI, RC, Kahikuchi	ACTO (Farm), ICAR-CPCRI, Kasaragod	05-09-2016
Dr. H. Moosa	CTO, ICAR-CPCRI, Kasaragod	CTO, ICAR-CPCRI, RS, Vittal	24-09-2016

## RETIREMENT

Name	Designation	Place	Date
Shri Ibrahim Valuge	Skilled Support Staff	ICAR-CPCRI, RC, Minicoy	Voluntary retirement on 16-08-2016
Shri K.S. Ramakrishna	Asst. Administrative Officer	ICAR-CPCRI, Kasaragod	31-08-2016
Smt. K.K. Shobhana	Skilled Support Staff	ICAR-CPCRI, RS, Kayamkulam	31-08-2016
Smt. Prema Pillai	Assistant	ICAR-CPCRI, RS, Kayamkulam	Voluntary retirement on 02-09-2016

## OBITUARY



Director and staff mourn on the sudden demise of Smt. Subhadra, Assistant, ICAR-CPCRI RS, Vittal, who breathed her last on 3<sup>rd</sup> July, 2016 and



Shri Ishwara, Skilled Support Staff, ICAR-CPCRI RS, Vittal, who breathed his last on 3<sup>rd</sup> September, 2016. We pray the Almighty that departed souls may rest in peace.



हर कदम, हर डगर  
किसानों का हमसफर  
भारतीय कृषि अनुसंधान परिषद

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