



## Contents...

Spectrum.....	2
Important Events.....	3
Human Resources Development.....	5
Award/ Honours.....	5
Publications.....	6
Transfer of Technology.....	9
Distinguished Visitors .....	14
Other Information .....	14
Personalia .....	15

## From the Director's Desk



### Placing India on the cocoa map

**A**cross the world, cocoa is grown in 58 countries in around 10 million hectares with an estimated production of 4.36 million tonnes. Among the major countries, Côte d'Ivoire has the highest productivity of 660 kg/ha, while the world productivity is 504 kg/ha. The four West African countries viz., Côte d'Ivoire, Ghana, Cameroon and Nigeria contributed for 73.3% of worldwide cocoa production. The world per capita consumption of cocoa has increased from 0.60 kg in 2004 to 1.09 kg in 2013. Switzerland recorded the highest per capita consumption (5.9 kg/ year) while the per capita consumption of India is only 0.04 kg. In India, cocoa is cultivated mainly in the states of Tamil Nadu, Andhra Pradesh, Kerala, and Karnataka. India produces 15,133 tonnes of cocoa from an area of 71,245 hectares. Tamil Nadu has the highest area under cocoa (33.6%), followed by Andhra Pradesh (31.1%), and in the case of cocoa production, Kerala has the major share (41.8%) followed by Andhra Pradesh (37.0%). The cocoa industry in the country had expanded to a considerable extent in recent years. At present, more than 15 industrial entrepreneurs and firms existing in the field demanding nearly 30,000 tonnes of

cocoa beans of which the present domestic availability is only about 40 percent.

An internal market with accelerated annual growth of confectionery industry, and a well established research and development back up are favourable factors for the crop. On the other hand, there are emerging and evolving hurdles to cross, in the forms of highly fluctuating international prices for the commodity, ever increasing mergers and acquisitions in the cocoa industry, lack of high-level technical competence and entrepreneurship in the domestic sector.

There exists huge scope to strengthen the upstream end of the coconut value chain by encouraging cultivation of cocoa as an intercrop in coconut gardens, and such a system can contribute around 20% increase in gross income per ha. Taking into consideration the past growth trends, the demand for cocoa beans in India by the year 2050 would be about 220 thousand tones and the projected supply is only 120 thousand tones, thereby forming a huge supply deficit of cocoa beans. We need to chalk out a pragmatic strategy to achieve the desirable projected demand-supply equation. About 23 lakh ha area is available in India under coconut and arecanut plantations for cultivation of cocoa plants and around 35% of this land is under irrigation. Thereby, the total potential area for cocoa planting comes to around eight lakhs ha. Through a phased manner area expansion it is possible to attain a production surplus of 20,000 tones by the year 2050. Increasing per capita consumption of cocoa in India is the motivating factor behind the projection of an optimistic supply-demand scenario which certainly ushers pavement for the vibrant and sustainable cocoa sector in the country.



## Moisture stress tolerance in cocoa

In response to induced water deficit stress, cocoa (*Theobroma cacao* L.) genotypes showed significant differences in morpho-physiological characters. Physiological parameters, viz., water potential, stomatal conductance, transpiration, quantum efficiency of PSII and net photosynthetic assimilation decreased under water deficit conditions. Based on these traits, cocoa hybrids could be distinguished into two groups. Group I with VTLCP-22, VTLCP-24 and VTLCH-4 and Group II with VTLCP-27, VTLCP-25 and VTLCP-26 exhibited high biomass production, good photosynthesis, strong stomatal resistance, high photochemical activity and effective use of intracellular water as adaptation strategy. Hence, it is proved that the genotypic variation expressed on physiological traits under water deficit conditions at seedling stage can be used as criteria for selection in crop improvement programmes.

*M'Bo Kacou Antoine Alban and S. Elaine Apshara*

## Management of red palm weevil

Area wide participatory community management process for red palm weevil management could reduce the incidence of the pest by 30 to 89 percent. The average reduction of the pest incidence was 55.8 per cent depending upon the level and intensity of participation, effective involvement and group dynamics of the stakeholders. The impact of the social process is being appraised by the stakeholders and necessary refinement and integration were made out of the lessons learnt validated by the stakeholder consortium through field visits, empirical data, perceptions of the groups, GPS mapping of the red palm weevil infested



High yielding cocoa hybrid – VTLCH-4 identified to be tolerant to moisture stress

palms before and after the intervention period. The work was implemented in 2,000 hectare area involving 7,068 farmers, plots and based on documentation of profile of 1,74,733 coconut palms. The social process and extension approach is being replicated in Kulasekhsrapuram (Kollam district), Chettikulangara (Alappuzha district), and Kooroppada (Kottayam district) currently under the *Keragramam* programme of Govt. of Kerala with technical facilitation by CPCRI.

*Anithakumari, P., Merin Babu, Chandran, K.P.,  
Josephraj Kumar, A.*

## Virgin coconut oil cake based muffin

Muffin is a popular sweet, high-calorie, baked product generally prepared by using refined wheat flour (maida). Since maida lacks most of the essential nutrients, vitamins and minerals, an attempt was made to utilize virgin coconut oil (VCO) cake as substitute to maida for muffin preparation. Nutritional quality studies at CPCRI showed that the residue obtained after VCO extraction is a rich source of protein, fat, minerals and dietary fibre which can be potentially used in various food preparations. The physical properties such as muffin height, weight loss, colour of crust and the crumb, textural properties such as hardness,



Protein rich VCO cake based muffin is rich in protein



springiness, resilience and chewiness and the sensory parameters such as appearance, colour, flavor, taste, texture and overall acceptability indicated that incorporation of 40 % VCO cake was most acceptable for the muffin. It contained 8.49% protein, 18.46 % fat,

1.14 % fibre and 1.10 % minerals compared to refined wheat flour based muffin had 7.22% protein, 16.77% fat, 0.16% fibre 0.58% minerals. The prepared muffin had maximum shelf life of 15 days.

*Shameena Beegum, Manikantan, M.R. and Arivalagan*

## IMPORTANT EVENTS ORGANISED

### Interactive meet on value addition in coconut

An interactive meeting on coconut based cropping system and value addition was held on 28<sup>th</sup> November, 2015 at Ambajipeta, Andhra Pradesh. While addressing the farmers and entrepreneurs, Dr. P. Chowdappa, Director, ICAR-CPCRI highlighted the enormous opportunities available for coconut producers to market their products both in domestic and international markets through effective value addition.



Dr. P. Chowdappa, Director, CPCRI delivering presidential address at Ambajipeta, A.P.

In this context, Dr. P. Chowdappa, Director, CPCRI held discussion with Shri Chinna Rajappa, the Hon'ble Deputy Chief Minister of Andhra Pradesh regarding enhancing the profitability of coconut farming through value addition. Hon'ble Deputy Chief Minister showed keen interest in establishing coconut parks in different districts for the benefit of farming community and other stakeholders. Shri Ananda Rao, Hon'able

MLA, emphasized the importance of value addition for increasing the income from unit area. Scientists from Horticultural Research Station, Ambajipeta, Officers from developmental agencies and cooperative societies participated in the meeting. A demonstration was conducted by Dr. K.B. Hebbar, Head, PB&PHT, on collection of fresh and unfermented 'Kalparasa' using coco-sap chiller.

### World Soil Day celebration and distribution of Soil Health Cards

World Soil Day was celebrated on 05-12-2015 at CPCRI, Kasaragod. Shri P. Karunakaran, Hon'ble Member of Parliament, Kasaragod distributed soil health cards to 150 farmers from Kasaragod district in this function. Dr. P. Chowdappa, Director, CPCRI presided over the inaugural function.



Shri P. Karunakaran, Hon'ble Member of Parliament, Kasaragod distributing soil health cards

As part of the World Soil Day celebration, a seminar cum farmers' meet was organized at ICAR-CPCRI, Regional Station, Kayamkulam on 5<sup>th</sup> December, 2015 to highlight the importance of soil health management through soil fertility evaluation. The programme was inaugurated by Shri N. Padmakumar, IAS, District Collector, Alappuzha. A campaign was organized in Chettikulangara Grama Panchayath highlighting the importance of soil test-based fertilizer application. The soil health cards prepared by the Regional Station, Kayamkulam were distributed to the farmers.



Shri N. Padmakumar, IAS, District Collector inaugurating World Soil Day at Kayamkulam



Shri K. C. Venugopal, Hon. Member of Parliament, Alappuzha, while inaugurating the soil health card distribution programme on 05-12-2015 as part of the 'World Soil Day' celebrations at Aryad Sansad Adarsh Gram, called for conserving the soil and water by following good agricultural practices for eco-friendly farming, productivity enhancement, and a healthy society.

A workshop cum training programme on "Enhancement of soil fertility for horticultural crops" as a part of "International Year of Soils-2015" was conducted at RC, Mohitnagar on 31-12-2015 in collaboration with N.B. Science Centre, Siliguri. Dr. B. N. Chakraborty, Professor, Dept. of Botany, N.B. University presided over the function. A total of 40 farmers participated in the programme.

## Jai Kisan Jai Vigyan campaign

Essay writing competition for vocational students, Scientist-Farmer interface and front line demonstration on selected technologies were conducted as part of Jai Kisan Jai Vigyan campaign at CPCRI Kasaragod during 23-29<sup>th</sup> December 2015. Dr. P. Chowdappa, Director CPCRI distributed prizes to the winners of essay writing competition. Scientist –Farmer interface programme on coconut and arecanut farming as well as demonstration of IDM practices against bud rot disease of coconut were conducted at Nirchal village.

As part of Jai Kisan Jai Vigyan programme, a Scientist-Farmer interface was conducted at Thyckal, Cherthala on 29-12-2015 by ICAR-CPCRI, Regional Station, Kayamkulam. Scientific farming concepts with emphasis on vegetable and coconut production system were imparted to about 130 farmers who had participated in the programme.

Jai Kisan Jai Vigyan programme was celebrated on 23-12-15 at Kalichamaram Milk Producers Coop Society, Kinnanoor-Karindalam. Shri V.V. Vellunga, President Kalichamaram Milk Producers Coop Society presided over the function. The programme was inaugurated by Dr. P. Chowdappa, Director, CPCRI Kasaragod. In his inaugural address, he highlighted the importance and contributions of farmers in developing the nation and the scientists participation to achieve



Shri K.C. Venugopal, M.P. inaugurating World Soil Day Programme at Aryad



Workshop and training on soil fertility at Mohitnagar



Inauguration of Scientist – Farmer Interface at Nirchal



Dr. P. Chowdappa, Director, CPCRI inaugurating the programme at Kinnanoor-Karindalam

higher agricultural production.

As part of 'Jai Kisan Jai Vigyan' week celebration, KVK – Alappuzha organized different programmes for farmers at various locations in Alappuzha district on 23-12-2015.



## Farmer-scientist-interface at Androth and Minicoy Islands, Lakshadweep

A farmer-scientist-interface on Island Agriculture-Problems and Prospects was organized jointly by the CPCRI and Dept. of Agriculture in the Multi Purpose Hall, Androth Island on 6<sup>th</sup> November 2015. Dr. P. Chowdappa, Director, ICAR-CPCRI presided over the programme. In his presidential address, Dr. Chowdappa stressed on the wide scope for organic farming in islands condition. He emphasised on the importance of product diversification and value addition in coconut. Shri P.V.P. Hussain, Chairperson, Dweep Village Panchayat, Androth inaugurated the programme. In the inaugural address, he stressed upon the livelihood concerns of the farmers in the island. He welcomed programmes for imparting training on new technologies as well as developing marketing facilities.



Shri P.V.P. Hussain, Chairperson, Dweep Village Panchayat, Androth inaugurating the programme at Androth

Dr. P. Chowdappa, Director, distributed coconut climbing devices were distributed to farmers who have undergone training on climbing the palm at Androth and Minicoy. Around 60 farmers participated in the interface programme.

## Seminar on organic cultivation of vegetables in island ecosystem

The seminar cum farmers'-scientist interface on "Organic cultivation of vegetables in Island ecosystem" was conducted in the Rangmanch Hall, Minicoy Island on 8<sup>th</sup> November 2015. Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod presided over the function. In his address, Dr. Chowdappa highlighted the importance of organic vegetable production in the Islands for a healthy and better living. Shri Ibrahim Oludu, Vice Chairperson, Dweep Village Panchayat, in his inaugural address emphasized the importance of agriculture in our day to day life and called upon youth to take up farming as an enterprise.



Dr. P. Chowdappa, Director, CPCRI delivering presidential address during the interface at Minicoy

## HUMAN RESOURCES DEVELOPMENT

### Deputation abroad

Dr. S. Elain Apshara, Principal Scientist (Hort.) visited the Philippines and participated in the Asia- Pacific Regional Cocoa Research Workshop held from 12-15 October 2015, organised by University of Southern Mindanao, the Philippines.



Participants of the Asia- Pacific Regional Cocoa Research Workshop

### Training attended within India

Shri Anok Uchoi, Scientist (Hort.) has undergone a training programme on "Integrated farming system approaches for sustainable hill agriculture under changing climate scenario" from 28-10-2015 to 06-11-2015 at ICAR Research Complex for NEH Region, Tripura centre, Lembucherra.

### Awards

Shri M. Arivalagan, Scientist (Biochemistry) received IFDC-2015 award for best poster presentation for the poster 'Proximate composition, nutritional quality, phenolics and antioxidant potential of coconut milk residue and VCO cake' in the 11<sup>th</sup> International Food



Shri M. Arivalagan receiving IFDC-2015 Award for the best poster presentation from Dr. Ruth Charrondierre, Coordinator, FAO – INFOODS.

Data Conference held during 3<sup>rd</sup> to 5<sup>th</sup> November, 2015 at National Institute of Nutrition (NIN), Hyderabad, Telangana State, India.

## Recognition

Dr. S. Elain Apshara, Principal Scientist (Hort.) has been recognized as research guide in Biosciences under the Mangalore University.

## Ph. D. awarded

Shri Mukesh Kumar, Scientist has been awarded Ph.D. Degree from the department of Biochemistry for his thesis entitled “Biochemical Investigations on Nutritional Properties of Pearl Millet (*Pennisetum glaucum* (L) R. Br.)” under the guidance of Dr. L.K. Chugh, Sr. Scientist (Biochemistry) from CCS Haryana Agricultural University, Hisar.

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## TRANSFER OF TECHNOLOGY

### Mera Gaon Mera Gaurav conclave

CPCRI, Regional Station, Kayamkulam conducted a one-day Mera Gaon Mera Gaurav (MGMG) conclave on 29-10-2015. Stakeholders from Kerala Agricultural University substations (ORAR, Kayamkulam; RRS, Moncompu), State Department of Agriculture, Animal Husbandry and Fisheries participated in the

interactions. A booklet entitled “MGMG - A Mission Translating Knowledge at Farmer’s Doorstep” was released on the occasion which included the passport data of the selected villages. An interaction meeting of stakeholders was also held during the conclave.

### Soil health management

Training programme for farmers on ‘Soil health management’ was conducted at CPCRI, Kasaragod on 05-12-2015 as part of World soil Day celebration. Dr. K.U.K. Nampoothiri, former Director, CPCRI inaugurated the training programme. Dr. S. Edison, Chairman, RAC offered felicitations in the inaugural programme presided by Dr. P. Chowdappa, Director CPCRI.



Dr. K.U.K. Nampoothiri addressing the participants at Kasaragod

### Model Training Course

Model Training Course sponsored by Directorate of Extension, Ministry of Agriculture, Govt. of India on ‘Participatory Technology Transfer Approaches for Plantation Crops’ was conducted at CPCRI, Kasaragod during 23-30 November, 2015 in which 20 officers from Andhra Pradesh, Haryana, Kerala and Tamil Nadu attended. Dr. P. Chowdappa, Director CPCRI inaugurated the Model Training Course. Dr. Sreenath Dixit, Director ICAR-ATARI, Bangalore was the chief guest in the valedictory function.



Participants of the Model Training Programme on technology transfer at Kasaragod

### Hybridization technique in coconut

Training programme on ‘Hybridization technique in coconut’ was conducted at CPCRI, Kasaragod during 16-17 December 2015. The training was conducted in

collaboration with Department of Agriculture Kozhikode for 20 selected climbers from various localities of Kozhikode district.

### Training programme on cocoa

A training programme on cocoa was conducted at RC, Kahikuchi on 30-09-2015 for fifty farmers from

Chaygoan, Nahira and Rampur village of Kamrup (Rural).

### Bio-agent production

Training programme on ‘Technology for production of *Pseudomonas spp* and *Trichoderma spp*’ for the technical personnel of Department of Agriculture, Kasaragod as part of Strengthening of Parasite Breeding Station under the scheme on Crop Health Management was organized at CPCRI, Kasaragod during 7<sup>th</sup>-9<sup>th</sup> December 2015.



Participants of bio-agent production with Director



## Interactive workshop on coconut red palm weevil

Interactive Workshop on Participatory Extension Approach for Coconut Red Palm Weevil Management

was conducted at CPCRI, Regional Station, Kayamkulam on 02-12-2015.

## Advances in arecanut and cocoa production and processing technology

Training cum exposure visit on advances in arecanut and cocoa production & processing technology was organized at CPCRI, RS, Vittal for the benefit of 15 Asst.

Agricultural Officers from Dept. of Agriculture, Goa on 16-11-2015 at CPCRI, RS, Vittal.

## Advances in cocoa production and processing technologies

Training programme on 'Advances in Cocoa Production and Processing Technologies for Women farmers of Karnataka sponsored by Mondelez India Foods Pvt.,

Ltd., Puttur was conducted on 20-11-2015 at CPCRI, RS, Vittal for 25 women farmers of Karnataka.

## Planting material production at Mohitnagar

On farm training programmes were conducted at CPCRI, Research Centre, Mohitnagar on 07-11-2015 and 10-11-2015 on planting material production of plantation crops and arecanut cultivation with crop diversification with spices for better livelihood, respectively for 47 and 40 members of SHG, respectively.

### Crop diversification in arecanut at Mohitnagar

An on farm training programme on "Crop Diversification in arecanut plantation with black pepper was conducted on 23-12-2015 in collaboration with Spice Board, Kalimpong in which 50 farmers of different arecanut growing area of North Bengal have participated.



Training programme on arecanut cultivation at Mohitnagar

## Off-campus training

A training programme conducted on "Scientific arecanut cultivation" for 40 numbers of arecanut growers on 06-11-2015 at Mourya Basti, Garubathan, Darjeeling.

Demonstration plot of cocoa under Arecanut was established on October, 2015 in farmer's garden at Nahira village of Kamrup (R) district.

## Exhibitions

Participated in University of Agricultural and Horticultural Sciences, Navile, Shivamogga, Karnataka in connection with Krishi Mela - 2015 during 3<sup>rd</sup> to 6<sup>th</sup> October, 2015.

As a part of National Minicoy Fest 2015 organised by Lakshadweep Sports and Tourism Dept, on 26<sup>th</sup> and 27<sup>th</sup> December, 2015 at Minicoy, CPCRI exhibition stall was arranged showcasing various farmers friendly technologies and research achievements of the institute.

## Radio talks

Dr. H.P. Maheswarappa, PC (Palms) participated in an interview on coconut and oil palm development

activities in the region, AIR, Bhadravathi, broadcast on 15-11-2015.

## KVK, Kasaragod

### Paddy harvest festival

A Paddy harvest festival was celebrated at Kondevoor of Mangalpady panchyath on 10-11-2015 in collaboration with the Nityananda Yogashrama, Kondevoor, attended by more than 200 farmers. The programme was inaugurated by Dr. H.P. Maheswarappa, Project Coordinator, AICRP (Palms), CPCRI, Kasaragod. Shri Yogananda Saraswathi Swamiji of Kondevoor Mutt addressed the gathering, in which, stressed the importance of conserving the natural resources, ecology and environment for the wellbeing of mankind. Three varieties suitable for organic cultivation viz., Ezhom I, II and III were introduced. Dr. Vanaja T., Asst. Prof., Kerala Agricultural University felicitated, who stressed the importance of conservation of traditional varieties for promoting nutritional security.



Paddy harvest festival at Kondevoor

### Training programmes

KVK organized 23 on campus training programmes where in 329 men and 231 women participated and 11 off campus training programmes with a participation of 151 men and 152 women.

### On Farm Trials

On farm trials on performance of cassava varieties under coconut based farming system, performance of fodder grass varieties as intercrop in coconut gardens, micronutrient management in pepper, refinement of nutrimix powder with coconut sugar and jaggery as well as validation of wonder climber in arecanut harvesting are being undertaken.

Frontline demonstrations in farmers' fields on organic cultivation of paddy, integrating bee colonies

in coconut garden for enhanced pollination and increased yields, management of bud rot disease in coconut, management of *Phytophthora* foot rot disease in black pepper, management of root grub in arecanut using bio control agents and effectiveness of mini sett planting techniques were initiated.

In addition to these, frontline demonstrations on organic farming package for coconut, coastal sandy soil management for higher coconut productivity, canopy management in cocoa, Micronutrient application in banana (Ayar), management of pod borers, EDP programme on value addition, CO-1 variety of Amaranthus, management of pseudostem weevil in banana, stingless bee colonies, technologies to prevent crop damage due to wild life intrusion, bio enrichment of areca leaf sheath and HYV of Sesame in paddy are also being continued.

## KVK, ALAPPUZHA

### Seminar cum Interface on value addition of jack fruit

Seminar cum interface on 'Prospects of entrepreneurship in value addition of Jackfruit' was conducted at KVK, Alappuzha on 19-12-2015. While inaugurating the programme, Sri P. C. Vishnunath, M.L.A., emphasised on the importance of initiatives in value addition of jackfruit and offered his support for popularising the value addition and marketing of jack fruit as a commodity with vast potential. About 100 farmers from all over the Kerala had participated.

Exhibition stall was arranged in the Onattukkara Fest, at Charummoodu by displaying different technologies



Shri P.C. Vishnunath, MLA inaugurating the seminar





and various critical inputs were made available to the farmers from the stall.

### Extension activities

Organized 36 training programmes (24 on campus, 6 off campus and 6 sponsored) benefitting a total

number of 1059 farmers/ rural youths during the period. A two day training programme on 'Agricultural marketing and quality control' for extension officials and entrepreneurs was conducted in association with AGMARK, Alappuzha, for 30 participants on 27<sup>th</sup> and 28<sup>th</sup> October, 2015.

## COMMERCIALIZATION OF TECHNOLOGIES

During the period, four technologies were commercialised by the Institute to entrepreneurs through MoA and an amount of rupees 1,97,500/- has

been collected as technology transfer fees, as per the details given below.

Sl. No.	Technologies commercialised	Date	Amount `	Licensees
1	Production of virgin coconut oil (VCO) by hot process	05-10-2015	25,000	Shri C. M. Kamaraj, Sakthi Coco Products,, Pollachi Tamilnadu
		13-10-2015	25,000	Shri Biju P.V., Keezhmala, Kasaragod, Kerala
		03-11-2015	25,000	Shri B.C. Menon, Sanjeevini Farmers Social Welfare Cooperative Society, Kollam, Kerala
		26-11-2015	25,000	Shri D. Rama Krishnan, Santhosh Farms, Kottur – Malayandipattanam, Pollachi, Tamilnadu
		22-12-2015	25,000	M/s AVS Agrolife Products, Shivara Hosur Village, Tumkur, Karnataka
2	Collection of fresh and hygienic neera and production of natural coconut sugar	06-10-2015	10,000	Shri Obalanarasimhaiah, C Nandihalli Coconut Federation, Tumkur, Karnataka
		07-10-2015	10,000	Shri Madhusoodhanan K, Keranidhi Federation of Coconut Producers Societies, Pathiriyad P.O, Kannur, Kerala
3	Production process for coconut chips	08-10-2015	10,000	Shri Suresh R., Kodihalli, Chitradurga, Karnataka
		13-10-2015	10,000	Shri Biju P.V., Keezhmala, Kasaragod, Kerala
		03-11-2015	10,000	Shri B.C. Menon, Sanjeevini Farmers Social Welfare Coperative Society, Kollam, Kerala
		04-11-2015	10,000	Smt. Aishwarya Balaji, Ascend Exports and Imports, Chennai, Tamilnadu
		22-12-2015	10,000	M/s AVS Agrolife Products, Shivara Hosur Village, Tumkur, Karnataka
4	Design and know-how of snow ball tender nut machine	28-12-2015	2,500	Smt. Pavithra S., Paakumara Thottam, Coimbatore, Tamilnadu
		TOTAL	1,97,500	

## SEMINAR/ SYMPOSIA/ CONFERENCES/ WORKSHOPS ATTENDED

Name and designation	Title	Place and date
Dr. P. Chowdappa, Director, Dr. Ravi Bhat and Dr. Vinayaka Hegde, Heads	Seminar on rejuvenation of vanilla in arecanut gardens	Sirsi, Karnataka 10-10-2015
Dr. H.P. Maheswarappa, Project Coordinator (AICRP on Palms)	Annual Group Meeting of AICRP on Spices	IISR, Kozhikode 6-10-2015 to 7-10-2015
	International Conference on Weed Science for Sustainable Agriculture Environment and Biodiversity	PJTSAU, Hyderabad 13-10-2015 to 14-10-2015
K.B. Hebbar, Head, PB &PHT	3 <sup>rd</sup> International Plant Physiology Conference	Jawaharlal Nehru University, New Delhi. 11 <sup>th</sup> -14 <sup>th</sup> December 2015
Dr. P. Muralidharan, Head, KVK	Workshop on "Road map for agricultural development in the west coast plains and ghats Agro-climatic zone"	ICAR - CCARI, Goa 16-10-2015
Dr. Thamban C., P. Scientist	Sensitization workshop on Mera Gaon-Mera Gaurav initiative	UAS, Bengaluru 3-10-2015
	Social Protection and Agriculture	Thrissur 16-10-2015
Dr. S. Kalavathi, Pr. Scientist	Resilient-Agriculture: Challenges of Extension	College of Agriculture, Vellayani 23-11-2015
Dr. Rajkumar and Mrs. Surekha, Scientists	Asian Pacific Weed Science Conference	Prof. J TSAU, Hyderabad 13-10-2015 to 16-10-2015
Shri S. Jayasekhar, Scientist (SS)	Annual Agricultural Economics Research Association Conference	CIFE, Mumbai 2-12-2015 to 4-12-2015
Dr. Mukesh Kumar and Shri Arivalagan, Scientists	Food data conference on food composition and public health nutrition	NIN, Hiderabad 3-11-2015 to 5-11-2015
Dr. M. Shareefa, Scientist	International Symposium on 'Biodiversity, Agriculture, Environment and Forestry"	Fortune Resort Sullivan Court, Ooty, T.N. 11-12-2015 to 12-12-2015

## CELEBRATIONS

### World Food Day

KVK, Alappuzha organised two programmes at the Aryad Sansad Adarsh Grama Panchayath as part of the 'World Food Day celebrations' on 16<sup>th</sup> October 2015. An awareness programme on 'Homestead cultivation of safe to eat vegetables for healthy life' was organised to members of Nature Club at Believers Church English Medium School, Gurupuram, Aryad. Another awareness programme was organised at the Krishi Bhavan, Aryad on the 'Importance of value addition of homestead fruits and vegetables' in achieving food and nutritional security of households attended by women self help groups.



Awareness programme organised at the Krishi Bhavan, Aryad



## **DISTINGUISHED VISITORS**

Shri P.J. Joseph, M.L.A. visited CPCRI, Kasaragod on 27-11-2015 and acquainted with the various activities of the Institute.

Dr. G. Lingappa, Deputy Director, Dr. Dhanapal,

K. Deputy Director (Research), Shri G. S. Ghatani, Assistant Director (Marketing), Shri S. S. Bora Scientist, Spices Board, Gangtok and Shri D. M. Barman Assistant Director, Spice Board, Kalimpong, visited RC, Mohitnagar on 23-12-2015.

## **OTHER INFORMATION**

### **Development plan for Lakshadweep Islands**

The team of scientists under the leadership of Dr. P. Chowdappa, Director, ICAR-CPCRI, Kasaragod met Shri P.P. Mohammed Faizal, Member of Parliament, Lakshadweep Islands on 7<sup>th</sup> November 2015 at Minicoy and discussed about the action plan for the development of agriculture in different Islands. Various programmes were suggested for the overall development of Island.



Dr. P. Chowdappa, Director and scientists of CPCRI held discussion with Shri P.P. Mohammed Faizal, M.P.

### **Guest House at CPCRI, Research Centre, Minicoy**

A Guest House of ICAR-CPCRI Research Centre, Minicoy was inaugurated by Dr. P. Chowdappa,



Dr. P. Chowdappa, Director, inaugurating the Guest House at Minicoy

Director, ICAR-CPCRI, Kasaragod on 8<sup>th</sup> November 2015. Dr. V. Krishnakumar, Head, RS, Kayamkulam & Contact Officer, RC, Minicoy, heads of offices in the Islands and other dignitaries were also present on the occasion.

### **Hindi Workshop Conducted at ICAR-CPCRI Regional Station, Kayamkulam**

A Hindi workshop was conducted on 10-12-2015 at CPCRI Regional Station, Kayamkulam. Dr. Sunita Devi Yadav, Deputy Director, Official Language Implementation Regional Office, Kochi, was the Chief Guest. In her speech, she explained in detail the comparative simplicity and ease of writing and reading the Hindi language and script.

### **Vigilance Awareness Week Programme**

As per the direction from Central Vigilance Commission, vigilance awareness week was observed at ICAR-CPCRI during 26-31 Oct 2015. All the employees of CPCRI took pledge for prevention of corruption on 26<sup>th</sup> October 2015. Dr. Balakrishnan, Inspector (Vigilance & Anti – Corruption), Kasaragod given a special lecture on this year's theme - 'Preventive vigilance for good governance'. Dr. H.P. Maheswarappa, Director in-charge presided over the function.

### **Institute Joint Staff Council**

The IJSC meeting of this Institute was held on 19-10-2015 at CPCRI Kasaragod. Dr. P. Chowdappa, Director CPCRI and Chairman IJSC presided over the meeting. Action taken on the previous recommendations were reviewed, fresh agenda were discussed and appropriate recommendations were made.





Staff of CPCRI carrying out weeds removal by the side of National Highway at Kasaragod

### Swachh Bharat campaign

At CPCRI, Kasaragod 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.

At Kayamkulam, a joint cleaning initiative with the participation of Municipality cleared the weeds along the barbed wire fence. Besides, four vegetable cultivation groups have been formed comprising of all staff of the Regional Station. One round of vegetables has been harvested by the groups.



### OBITUARY

Director and staff mourn on the sudden demise of Shri K. Honnappa, SSS of ICAR-CPCRI, RC, Kidu, who breathed his last on 25<sup>th</sup> Dec. 2015. We pray the Almighty that the departed soul may rest in peace and tranquility.

## PERSONALIA

### APPOINTMENT

Name	Designation	Place	Date
Shri Man Mohan Deo	Scientist (AS&PE)	CPCRI, Kasaragod	12-10-2015
Shri Shivaji Hausrao Thube	Scientist (Ag. Entom.)	CPCRI, Kasaragod	12-10-2015

### PROMOTION

Name of the staff	From (Designation)	To (Designation)	w.e.f.
Shri K. Sudhanandan	Technical Officer, CPCRI, RS, Kayamkulam	Senior Technical Officer, CPCRI, RS, Kayamkulam	19-05-2014

### TRANSFER

Name of the staff	From (Place)	To (Place)	w.e.f.
Shri Saran Kumar Rizal, CTO	CPCRI, RC, Mohitnagar	CPCRI, Kasaragod	07-10-2015
Dr. S. Sujatha, Pr. Scientist (Agron.)	CPCRI, RS, Vittal	IIHR, Bengaluru	05-12-2015
Dr. Paulraj S., Scientist Sr. Scale (Ag. Microbiol.)	IIPR, Kanpur	CPCRI, Kasaragod	28-12-2015

## RETIREMENT

Name	Designation	Place	Date
Shri K. Soman	Technical Officer	CPCRI, RS, Kayamkulam	31-10-2015
Smt. U. Janaki	Skilled Support Staff	CPCRI, RS, Kayamkulam	31-10-2015
Smt. K. Lalitha	Skilled support Staff	CPCRI, Kasaragod	31-10-2015
Shri N. Ramachandran Pillai	Technical Officer	CPCRI, RS, Kayamkulam	30-11-2015
Shri A.J. Bhadran	Technical Officer	CPCRI, RS, Kayamkulam	30-11-2015
Smt. Vijaya Dileep,	Private Secretary	CPCRI, RS, Kayamkulam	30-11-2015
Smt. Jainamma Job	Assistant	CPCRI, RS, Kayamkulam	30-11-2015
Shri M.S. Antony	Assistant	CPCRI, Kasaragod	30-11-2015
Shri S. Sasidharan Pillai	Skilled Support Staff	CPCRI, RS, Kayamkulam	30-11-2015
Shri K. Haridas	Skilled support Staff	CPCRI, RS, Kayamkulam	30-11-2015
Shri Shivarama	Skilled support Staff	CPCRI, RS, Vittal	30-11-2015
Shri Balen Kalita	Tech. Officer	CPCRI, RC, Kahikuchi	31-12-2015
Shri O. Pundarika	UDC	CPCRI, RS, Vittal	31-12-2015
Smt. Kuttiyamma	Skilled support Staff	CPCRI, Kasaragod	31-12-2015



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