INSIDE

THEME

Success stories in Coconut farming

Let us salute the innovative coconut farmers

Dear coconut farmers,

This issue of the Indian Coconut Journal is focusing on innovative and successful coconut farmers. We have with us an array of farmers who, through their innovative and creative ideas have achieved success in coconut farming. Honouring the successful farmers by bringing them to the forefront usually happens only once in an year either on the farmer's day or during the distribution of annual awards to farmers. Why don't we try to create a directory of the 100 best coconut farmers from major coconut growing districts in various states and introduce their ideas and expertise before others? Then we may try to increase this number to 1000 best coconut farmers in such districts. This issue of the Journal may be treated as a humble beginning towards this endeavour.

Details about 1000 Coconut Producer's Society (CPS), 5000 Friends of Coconut Tree (FoCTs) and the identified best farmers would definitely find a place in the website of the Board along with photographs. The successful farming models can be compiled in the form of a book and can be introduced before the farmers. The best models in many other fields are finding their place in the media. There are even 'best seller books' on some of them. The 'one straw revolution' and the cultivation practices introduced by Shri.Subash Palekar are made famous through books.

It is high time that we must think of publishing the experiences of the best coconut farmers. The success stories of our farmers and the Friends of Coconut Trees (FoCT) will become hits in the market, provided it is made attractive and appealing to the existing and emerging farmers. This issue of the journal is the first step towards this goal.

Technical experts of the Board authors in this issue. Board is expecting articles from farmer writers, writers who love farming, media persons working in farming sector and also from officers of the agriculture/horticulture departments. Board is also expecting publishing houses to bring out them before readers. Farmers are also invited to collect information with photographs of the successful farmers of their respective areas and the same can be posted in the website of the Board. Your esteemed suggestions and advises are also awaited. Such details can also be gathered through CPSs, coconut farmers' welfare associations and FoCTs.

It is expected that by the time this issue of the journal reaches you, 1000 CPSs would have been formed and 5000 youths trained as 'Friends of Coconut Tree' (FoCT) would be in the field. FoCT training has been successfully conducted in Maharastra and Lakshwadeep Islands. FoCT training in Tamil Nadu and Karnataka are in the offing. Sale of tender coconut water has been already initiated by the newly formed Coconut Producer's Societies. Harvesting and marketing of more and more tender coconut is the crucial step to arrest the price fall of matured coconut. CPSs and FoCT are the initiatives of the Board to help farmers arrest the price fall innovatively and creatively. We hope that through these initiatives the farmers can have more command and control on their products and prices. As there are an array of value added products that can be manufactured from coconut, our farmers have realized the potential of this crop and are confident that through product diversification and value addition they themselves can contribute to arrest the price fall.

Our farmers believe that the fall in price of copra and coconut oil experienced during this year is artificial. Neither copra nor coconut oil has experienced any price fall in the international market recently. A downward trend in production is observed in the major coconut producing countries like Philippines, Indonesia, Sri Lanka, Thailand and Malaysia. The production has come down drastically in Philippines and Sri Lanka. In Indonesia, it is not copra and coconut oil but other value added products that form the major share of their exports. Sri Lanka has banned the export of coconut. As Brazil is not in a position to supply tender coconut and related products in required quantities, USA is now importing tender coconut products and other processed coconut products from Philippines, Thailand and Sri Lanka. USA is now looking forward for tender coconut products from India. Lots of enquires are coming to the Coconut Development Board in this regard.

An increase of about 50% is observed in the export of coconut products during the last nine months upto December 2011compared to the corresponding period of the previous year. A decrease in the total production of coconut is observed in Kerala. There has been no report on increased production from Tamil Nadu too. No other states in India are producing copra and coconut oil in scales similar to Tamil Nadu and Kerala. A single coconut fetches more than Rs. 20 in many parts of North India and in some temple premises a single coconut is sold for Rs. 30 or even more.

Then what could be the reasons for the fall in prices? There is no rationale behind this price fall even as per normal market and price theories of Economics. The only alternative before us is to accept the reality and be creative and productive to respond to this challenge in a united manner. Board is in the process of making available the advantages of the MSP through the CPS to the farmers.The Government of Kerala has already issued orders to start copra procurement immediately on MSP rates. Initially we will work together for procuring coconut through CPSs for making copra and thus making the opportunity for getting the benefit of the declared MSP. Unlike the previous years, this year offers a golden opportunity to the farmers for getting more benefit by procuring copra through CPSs. Board has already requested the Government of Tamil Nadu also to issue guidelines for procurement and decide state level agencies.

We must develop the supply chain logistics for the next summer season wherein we can regularize harvesting, sale and processing of tender coconut.

We must make use of the expertise and talents of management and engineering institutions in the coconut growing districts in India to help farmers in the supply chain development, marketing, finance and also in formulating the future strategy and vision of the CPSs.

Educational institutions can play a major role in the vision building and also in preparing the business plan, in forming their Federations and Producer Companies. In total, mentoring of CPSs can be by managerial and technical institutions. The first step in this direction has already been initiated by Rajagiri Centre for Business Studies, Kochi, Kerala. They will commence the training programme and would transfer management expertise from class rooms to field, especially to CPS s in Ernakulam district. Board solicits the co operation of all similar management and engineering institutions in major coconut growing districts in the country in this mentoring process. It is expected that this tie up would be mutually beneficial to the farmers, CPSs and the educational institutions. Officials of the Board in the respective states and charge officers of the respective districts must kick start this initiative.

A precarious situation brings out the best talents of people and organizations to overcome the challenges posed by the situations and can lead to a better situation. Thousands of such motivating stories are there as role models in our country. Let us together face this season of price fall to hand hold coconut farmers to a better future.

T.K. Jose
Chairman

Srikanta in his farm

Srikanta, an enterprising farmer from Kanakapura

Vijayakumar Hallikeri*

H.K.Srikanta son of Late Kunnamari Gowda, hails from an agricultural family. He was born in Honnaganahalli Village of Kanakapura Taluk, Ramanagara District. After his Post-Graduation in Agriculture from the University of Agricultural Sciences, Bangalore he visited the neighbouring states like Kerala, Tamilnadu, Maharashtra and countries like America, Holland, Germany, Australia, New Zealand, Japan, Switzerland, China, Malaysia, Mauritius and South Africa to develop his knowledge and skills on the latest developments in agriculture.

Without opting for any lucrative government jobs he took up agriculture as his profession and converted his 20 acre ancestral agricultural farm into a scientific farm. There are about 1000 coconut palms which are 40-45 years old with a productivity of around 125 nuts per tree. He is also having a scientific nursery for producing quality planting materials of coconut and other fruit crops.

Along with his classmates he started a nursery in his native village. Later on they started a seed company named Ceekay Seeds and Seedlings for developing new hybrid vegetable seeds. They also established one R & D Farm near Maralvadi Village, Kanakapura Taluk, Ramnagara district in 86 acres. Srikanta has developed his 86 acres into a model horticultural farm. He constructed contour bunds to avoid soil leaching. Srikanta has undertaken scientific farming practices like contour farming, rain water harvesting, construction of check dams to conserve the water, drip irrigation for entire block of 86 acres, planting of diversified horticultural crops like banana, mango,

Intercropped with pepper

A high yielding palm

sapota, vanila, arecanut and coconut. This was done 10 years before keeping in view of the scarcity of labour which has become a major problem today. His farm is very often visited by students of University of Agricultural Sciences during their study programmes, various farmer groups and various agri-related institutions. Nearly 40,000 tissue culture banana plants are grown and maintained by adopting staggered planting to ensure continuous harvesting.

His farm is identified as one of the best scientific horticultural farms running by a qualified agricultural graduate. The State Government in recognition of the innovative ideas adopted in the farm, has awarded him with Dr.M H Marigowda State Award for the best horticultural farmer 2005.

Being aware of the growing demand for organic products, he has converted his farm into an organic farm by establishing vermicompost production unit having 100 tonne production capacity and is using bio control agents in his farm.In recognition of his interest in farming, Coconut Development Board has motivated him to establish Coconut Nucleus Seed Garden programme with the financial assistance of the Board. Accordingly he has planted dwarf and tall varieties of coconut palms in about 10 acres, which will start bearing within the next 2- 3 years.

Simultaneously he has also started an export company called Indus Seeds Exports for production and export of hybrid vegetable seeds to various export markets like US and UK.

In anticipation of the demand for organic products and bio-pesticides he is running a bio-pesticide production company called Bio-Pest Management Pvt.Ltd. since 1996 in his farm premises. This company is manufacturing various bio-pesticides and

Fermentor for Trichoderma production

Vermicomposting at farm

Funnel traps for lepidopteran pests

Mango fruit fly trap

RPW entering into trap

RPW trapped

bio-control agents, mainly for horticultural crops and plantation crops.

He is having a well established state of the art laboratory facility for developing new products. Products like Sex pheromone traps and lures: of Cotton boll worm - Helicoverpa armigera, Tobacco cut worm, Pink boll worm, Diamond back moth, Spotted boll worm, Paddy stem borer, Brinjal fruit and shoot borer; Paraphermone Traps and lures of Fruit flies: Cucurbit fruit flies, mango fruit flies. Aggregation pheromone lures: for Red Palm Weevil, Rhynchophorus ferrugineus, which attacks coconut trees, Antagonistic fungi – Trichoderma viride and T. harzianum. Botanicals – Neem based formulations. Micro-Nutrient formulations for vegetables, banana, arecanut, mango etc., spreading and wetting Agent: Surfastik – a concentrated non-Ionic adjuvant (spreader/wetting agent) for better performance of the biopesticides/pesticides etc have been developed by the laboratory. Suraksha is a new product for the management of Koleroga of Arecanut. The UAS Bangalore has conducted the trails and the product is found to be very effective. He is also working on alternative control measures for budrot/collar rot in coconut especially in dwarf coconut varieties keeping in view that the Bordeaux has become resistant to phytophthora which is a common cause for both coconut and arecanut. Now he has isolated the fungus and new combination trails are in progress which is expected to be a boon to coconut and areca farmers.

Check Dam at farm

The different bio pesticides manufactured by this company are supplied to the farmers of state through the department of horticulture/ agriculture. During the current year, Biopest management unit has been empanelled by Coconut Development Board for the supply of Phermone traps for controlling the red palm weevil in coconut in the LODP cluster programme of the Board

Foreseeing the severe labour problems faced by the sector and also the increasing demand for tender coconuts, Srikanta has converted his entire farm into a Coconut Orchard by reducing the area under banana. Recently he has planted 2000 tender coconut saplings of Chowghat dwarf and Malayan dwarf varieties, and another 500 D x T varieties procured from the Mandya DSP Farm of the Board.

Srikanta is planning to set up a processing plant for tender coconut keeping in view of the future increasing demand for tender coconut. To explore the market opportunities he has already started studying the market strategy for marketing the products. The unit will be set up later. Srikanta is not only a progressive farmer but also actively participates in social activities with a view to serve society.

** Deputy Director, Regional Office, CDB, Bangalore*

Reaching heights in the midst of dwarfs

*Nisha. G.**

Manoharan Nair hailing from Tholikkodu village in Thachankodu, Thiruvanthapuram is widely known as a promoter of dwarf coconut varieties. Manoharan Nair a strict follower of organic farming is into farming since his younger age.

Excerpts of the interview with Shri. Manoharan Nair.

Which are the main crops you are cultivating?

I own 2 acre 30 cents of agriculture land. In this I have planted 70 coconut trees, out of which 45 are dwarf and 25 tall varieties. 10 trees are 60 year old and the rest are aged between 2 and 25 years. I am running an ornamental plant nursery. I am also doing lease farming in various places where banana, tapioca and various other vegetable crops are grown.

Can you explain on your cultivation practices?

Manoharan Nair with the dwarf palm

I am mainly following organic farming. Every year I will make basins around the palm. 4kg vermi compost 20 kg cow dung and 1 kg bone meal are applied every year. Mulching is done with green leaves.

Are you practicing irrigation in your garden?

Water in pumped from the nearby canal and proper and timely irrigation is given whenever there is no rain. Water from the nearby canal is used for irrigating the palms.

Which are the plant protection measures you are following in coconut farming?

According to my experience, the Malayan Green Dwarf variety which is widely grown in my garden is disease resistant. Yearly crown cleaning is controlling the pest and disease to a greater extent. Crown cleaning is done thrice in a year. I practice the traditional method of protecting the palm against the attack of rhinoceros beetles by applying salt and ash. Attack of pig is prevalent in the area. I had a loss of Rs.5000/- last year due to the attack of pig.

Which are the other areas into which you are?

I am the coordinator of the Matsya Keralam project of the Kerala fisheries department. I am having pisciculture attached to my farm and is growing various varieties of fish. Last year I got Rs.25000/- from pisciculture alone.

I am also having a vermi compost unit from which enough compost is made for manuring. I am also supplying earth worms to all required persons.

Being known as the promoter of dwarf varieties, what are your observation and activities for promoting dwarf varieties?

Manoharan Nair honoured on the Farmers Day

I started promoting the dwarf varieties of coconut at a time when people were neglecting coconut cultivation due to the dearth of climbers. I collected Malayalam Green Dwarf and the Gaurigathram varieties. As I could not develop enough seed nuts from my own mother palm, I identified good mother palms from various places in Tholikodu and collected seed nuts. Now I am producing seedlings and distributing seedlings of dwarf varieties. I am also making available mature nuts for household requirements. There is great demand for the seedlings of dwarf varieties from inside and outside the state. I have distributed more than 5000 dwarf variety seedlings by now. The advantage and attraction of the dwarf variety is that it will start bearing from the 3rd year.

Manoharan Nair with his harvested prawns and tapioca

In order to create awareness among the children on farming especially in coconut farming, I have initiated a project. Under this project dwarf coconut seedlings have been planted in 300 school compounds. I personaly undertake the necessary plant protection measures.

Can you explain about the yield you get from your crop and also on the marketing of products?

I am getting 4000 coconut per year, the major share of which is processed into copra and coconut oil. I am getting 7kg rubber on alternate days. Last year I got 62kg ginger and 800kg rice. From banana alone I could get Rs.1.24 lakhs last year. From a single tapioca plant. I am getting above 30 kg tapioca.

What are the innovations into which you are?

I am hopeful that the project for children implemented under my initiative will definitely create awareness among the younger generation on agriculture. If any schools are interested in this project, I am ready to extend all help.

As the coordinator of Matsya Keralam, I am sharing my knowledge in pisciculture to all those who are approaching me.

What is your opinion about the assistance extended by various agencies to promote farmers?

Even though there prevails great demand for dwarf varieties, I do not have the financial background for producing seedlings in required quantities. If some agency is coming forward with financial assistance, I am willing to produce seedlings in large quantities. The pump set in my coconut garden is provided by the Krishi Bhavan.

The message that agriculture and our culture are the two sides of a single coin should be spread among our young generation. They should be warned that we doesn't have an existence on this earth without agriculture. The farmers from among us must be identified and encouraged. These agencies must create the circumstances for an individual to proudly say that he is a farmer.

Are you aware on the schemes of the Board like Replanting and Rejuvenation, FOCT and CPS?

I am the convenor of the Replanting and Rejuvenation Programme in Thanchanode ward in Tholikode panchayath. Almost 80% of the marked palms have been cut and removed. Farmers have also received the fertilizer supplied as part of the scheme.

Around ten persons from my Panchayath have attended the Friends of Coconut Tree training programme of the Board. I am expecting that this programme would solve the problem of the dearth of climbers to a certain extent. The name and contact details of the trained persons should be made available in the Panchayath and Krishibhavan.

The new concept of the CPS will definitely create an awareness among the farmers on the advantages of being organised under a common platform. If production to marketing can be done on a group basis, the cost of production can be brought down considerably. CPS can procure the products from farmer and can venture into processing and value addition. We are planning to form 10 CPSs in Tholikode Panchayath. One is already registered under the Charitable Societies Act.

I am hopeful that the CPS would transform as a torch bearer for the farmers who can have a say on determining the price of his product.

Manoharan Nair who loves farming especially coconut farming is a good model for the present as well as the next generation. The most striking characteristic of Manoharan Nair is his willingness to share his expertise and experience to others. He believes that farming is a respectable profession. His advocacy for the dwarf varieties of coconut is worthy to be appreciated.

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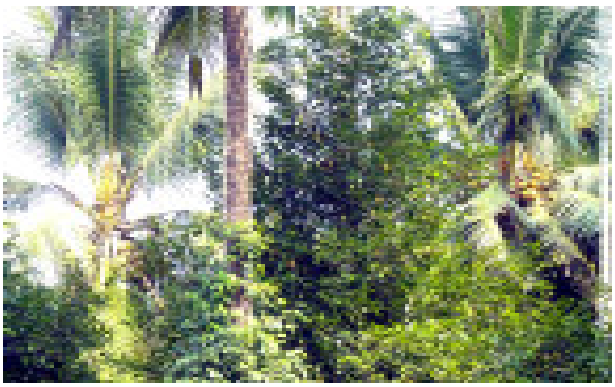
**Technical Officer, CDB, Trivandrum*

Innovation brings in sustainability

Leenamol MA*

K P Peter hailing from Mekkad, near International Airport, Kochi is a retired Deputy Commissioner of Commercial Taxes had set himself for becoming a farmer after his retirement. He planned well in advance and bought 7 acres of land before 22 years. After his retirement he became a full time farmer.

Excerpts of the interview with K P Peter



Nutmeg as intercrop with coconut

Which are the crops you are mainly rearing?

Coconut and nutmeg are the main crops. Arecanut is also there. I planted 360 coconut palm out of which 25 are TxD hybrids. The TxD seedlings are procured from the agriculture department. The tall seedlings are brought from Kuttiyadi. TxD variety is giving better yield than other varieties. In my opinion, seedlings procured from government agencies are of better quality and give better yield.

Is the soil and climate condition of your area suitable for farming?

When I bought this land before 22 years, this was a barren land which was not suitable for rearing any crop. No facility was available for irrigation. Once I started irrigating the land, it became best suited for farming.

Which are the farming practices you are adopting now?

I have 4 labourers in my 7 acre plot where I have planted coconut, nutmeg and arecanut. I am following the scientific management practices including irrigation, fertilizer application and basin making.

Can you explain your method of fertilizer application?

Basin is made around the palm every year. Organic manures like cowdung and chemical fertilizers like factomphose @2kg and potash @1kg are applied in the basin

What are your methods of irrigation?

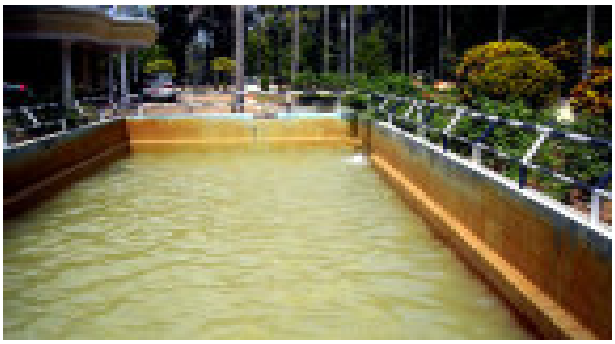
I am using the water from the four borewells and a well in my property. With a motor, water is pumped to a 70 feet length, 30 feet width and 24 feet depth tank. Water is supplied to all palms and nutmeg through drip system. Irrigation is followed whole throughout the summer season.

Peter in his garden

What are the innovations you are practicing in farming?

I have adopted certain innovative techniques in irrigation. The first challenge before me was the difficulty in pumping water directly to the farm land. I overcame this challenge by using a compression motor. With the help of the compression motor, water is pumped to the main tank. This water along with the water from the well is used for the drip system. Even though filters and sprinklers are considered essential component of drip system, I am not using both. A tap is connected at the end of the main pipe facing up. Every month, this tap will be opened and the acquired mud along with water will be pumped out. Thus through this automotive cleaning, water can be made available in required quantities to coconut and nutmeg.

Which are the other innovative ideas you are undertaking?



Tank for storing water

Drip system without sprinkler

Earlier I had made a tank for making vermi compost. Later on it was felt difficult to carry the vermi compost to each plant. So now I am trying to make vermi compost in the farm land itself. Small channels are made in between the garden and coir pith is deposited along with cowdung in different layers and is plastered with mud. Earth worms are deposited inside by making small holes on these bunds. I am hopeful that this would be a successful attempt in manuring.

How do you control the pest and disease attack?

Bud rot and rhinoceros beetle are seen in the garden. Proper and timely control measures are taken to prevent the pest and disease attack.

How do you make harvesting and how do you market your product?

Scarcity of labourers is a serious problem in harvesting. I am hopeful that the Friends of Coconut Tree would solve this issue to a great extent. The average productivity of my garden is 100-120 nuts. TxD varieties are yielding more than 200 nuts. I am getting around 60000 nuts in an year. I am getting a better income by processing coconut to copra. Husk and shell also bring additional income.

Is farming profitable to you?

If we are undertaking farming seriously it can be made profitable like any other business. The most important thing to be kept in mind is that coconut should not be cultivated as a single crop. Two or more crops should be grown together. Coconut can be a good companion crop to many other crops.

Have you received the assistance from any government agency?

I am keeping good relationship with the Krishi Bhavan. I have insured coconut and banana. Department of agriculture is having various schemes. But these are all compensation only. In my opinion there must be schemes for accelerating production for getting a better price for the products and also for encouraging product diversification. This would be more beneficial for the farmers. Quality seedlings should also be locally made available.

What is your advice for the fellow farmers?

Quality seedlings should be planted in the specified distance wherein you can also rear intercrops. Quality seedlings are usually disease resistant. The attack of pests and diseases can be controlled if we maintain the farm land clean. Nutmeg is the best intercrop of coconut. If a row of mahogany is planted around the garden, the damage due to heavy wind can be controlled. Farmers can make additional income from the wood too.

What is your opinion on the new initiatives of the Board like FOCT and CPS?

I am hopeful that with the FOCT training of the Board, the dearth of climbers for harvesting and other plant protection measures can be solved. I consider the CPS as a first step of bringing together the farmer under a common platform. This would ensure the farmer a better and steady price for their produce. Last year I approached two societies to procure the 14 quintal copra I had processed. But none of them were willing to procure it. I am hopeful that with the formation of Coconut Producer's Societies, such issues would be solved.

The 19 year old coconut palms and the 9 year old nutmeg trees in the garden keep this retired Deputy Commissioner busy, productive and closer to nature. He believes that land is a treasure house of sustained income as long as you are enthusiastic and innovative.

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** Technical Officer, CDB, Kochi-11*

Awesome farming in migrated land

K.S. Sebastian*

T.V.Thomas had migrated from Pala, Kottayam district and settled in Vettilapara in Malapuram district way back in 1970. He bought 7½ acres of land and settled there and started his farming. He was driven with the confidence of his young age and the encouragement and support given by his wife Elikutty.

Thomas started farming with rice, ginger, banana and pepper. In the second year, he planted 50 coconut seedlings. He bought seedlings from a nearby private nursery. Along with the seedlings he also bought 200 seednuts and sown in his garden. He had planted 125 seedlings from the sown nuts. Thomas planted coconut and arecanut in 3 acres and rubber in the balance 4 acres. In 1990 he planted 175 nutmeg as intercrop in his coconut garden. Now he is having 175 coconut palms, 175 nutmeg, 1000 arecanut and 500 rubber trees.

A view of the garden

Thomas claims that he is getting good yield of 150 nuts per palm per year. From some trees he is getting even 200 nuts. No pest or disease is seen in his garden.

Given good management practices, he is getting a steady yield. Almost all the trees in his garden are of the same age. Thomas does not adopt new planting in coconut. He is of the view that like rubber, all trees in a garden should be of the same age. But he is a strong advocate of intercropping. He has maintained recommended distance among his palms. He believes that it is wise to have 50 coconut palms in an acre. Enough space will be available for intercropping and the income from the intercrops will be more than that of the main crop, he adds.

Harvesting is done four times in a year. He avails only traditional climbers for harvesting who charges Rs.20/- per tree.

Thomas is rearing Holstein-Friesian breed of cattle. He is getting 30 liters of milk daily from two of them. He is selling the milk @ Rs.30 per liter. Thomas is having a vermi compost unit of 4 meter length, 1 meter width and 60 cm depth wherein all the kitchen waste and garden waste are converted into compost. He is having a bio gas unit also.

Nutmeg with coconut

He is applying bone meal and neem cake (both together 5kg) for coconut by the end of May every year. Fertilizer application is done in September just before the monsoon. Urea, Phosphate and Potash is applied @2kg per tree. A tank of 12 feet length, 8 feet width and 6 feet depth having a capacity of 50,000 liter is attached to the cattle shed for storing the cowdung solution. An HP motor is attached to the tank for pumping the cow dung solution to all the palms. This is done in alternate 45 days. Thomas is adopting sprinkler system for irrigating his garden,

The Holstein-Friesian breed cattle

Cow dung solution stored for manuring

Beetle vine grown on arecanut

The modern copra dryer

the water source being a pond dug in his garden.

He is getting an income of around 2 lakhs from coconut. A modern copra dryer installed with the financial assistance of the Board makes the processing of copra easier for Thomas. He fetches a better price for his copra as this modern dryer adds to the quality of copra. Thomas could get the advantages of the MSP in 2009-10 as he was having a copra dryer of his own.

Since the Coconut Producers Societies of the Board are recognized as procuring agencies, he is hopeful that in future the farmers can definitely get the benefits of MSP. As the President of the Vettilapara CPS he is determined to make available the advantages of MSP to all the farmers. He is hopeful that if all the farmers are unitedly participating in this process for procurement, it would definitely be a big success.

Thomas is getting10 quintal nut meg in an year which fetches him around 4 lakhs. From mace alone he is getting Rs.3 lakhs. From the 30 quintal arecanut he earns an income of Rs. 3 lakhs this year. From the beetle vines, he is getting Rs.2000/- in 20 days.

Thomas is strictly following soil and water conservation measures. He is not wasting a single drop of rain water. Rain pits are made in the garden to conserve water. All the crops in Thomas's garden are getting direct sunlight. As he is following the multi cropping pattern, he gets yield from one crop or another throughout the year.

Thomas is getting the support and cooperation of the government agencies in his farming. He got the financial assistance for micro sprinkler, vermi compost unit and bio gas unit from government agencies.

Thomas disagrees with the apprehension that the present circumstance in Kerala is not suitable for successful coconut farming. He believes that if only 50 palms are planted in an acre and suitable intercrops are cultivated along with it, coconut farming is more profitable than any other farming. At least four intercrops must be cultivated along with coconut.

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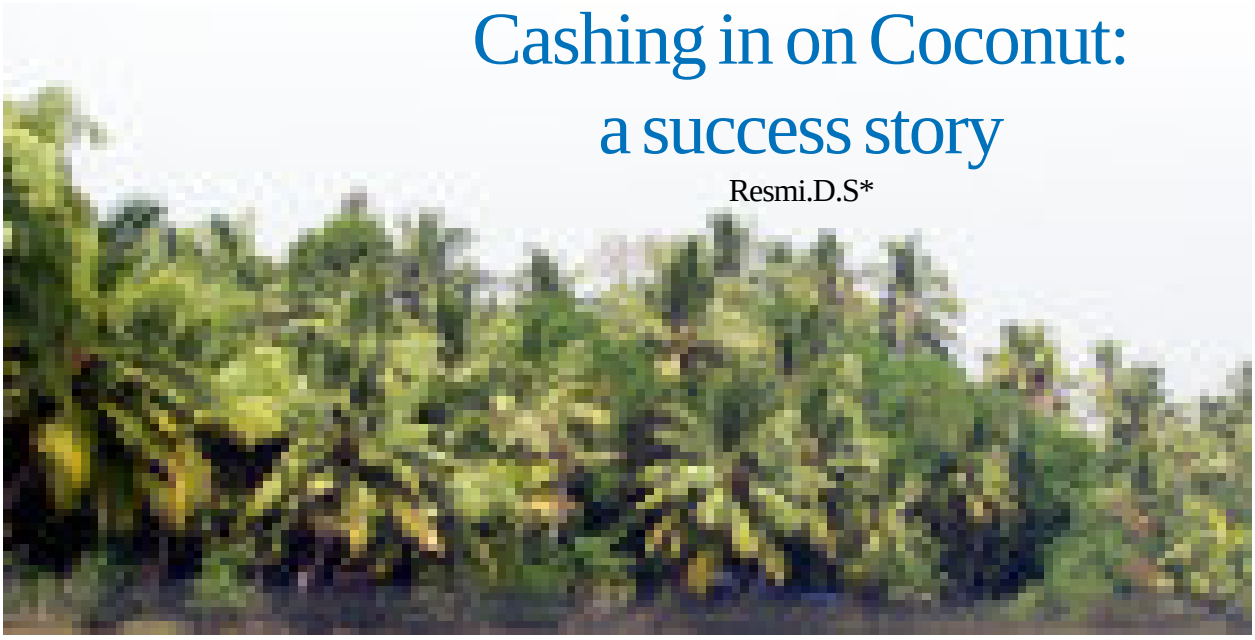
** Asst. Marketing Officer, CDB, Kochi-11*

Cashing in on Coconut: a success story



Resmi.D.S*

"The happiness and satisfaction which I get from farming is exceptional" says Sreekumar (37) from Perumbalam in Alapuzha district in Kerala who has been engaged in farming from his very young age itself. Being a graduate, he prefers farming to any other profession. He belongs to an agricultural family and his father Aravindan is also a progressive farmer. His family includes his parents, wife Sheeba and 2 daughters.

Sreekumar owns 7 acres of land, of which about 5 acres is planted with coconut. He has about 400 healthy bearing palms. The average nut production is 100 nuts per palm. Sreekumar feels that every inch of the land should be fully utilized and there should be an integration of all farming practices so that farming becomes successful. In addition to coconut, he cultivates rice, tapioca, nutmeg, cocoa, pepper and vegetables. Other activities include pisciculture and vermicomposting. Sreekumar has now planted hybrid cowpea and watermelon in his field.

Sreekumar follows traditional practices in his farm. Regular manuring and irrigation is carried out. The water from the fish culture is used for irrigating the palms. He has also adopted sprinkler irrigation in his plots. Irrigation with Sprinkler for 10-15 minutes in alternate days is sufficient for the palms. Mulching is done in the basins to avoid evapotranspiration.

Organic manure used by him includes cow dung, neem cake and vermicompost. The entire vermicompost needed for his crops are produced in his organic manure units. The organic residues from the farm are entirely recycled and this is essential for integrated farming.

Sreekumar prefers to mix organic manures along with chemical fertilizers. Neem cake is mixed with

Coconut garden intercropped with banana

Vermi compost unit

The intercrops

urea in a proportion of 1:6 and kept for 2 days before applying in the basin.

Since Perumbalam is an island, the soil and climate are quite beneficial for cultivation of crops. In his opinion, the incidence of pests and diseases is much less compared to other coconut growing areas. Regular monitoring of palms are carried out and spraying of chemical pesticides @ recommended doses is resorted to. For controlling eriophyid mite he is spraying neem oil – garlic emulsion.

Sreekumar feels that farming would be profitable if it is planned and managed well. Intercroping and allied activities fetches him additional income of Rs.50,000 per year.

Coconuts from Perumbalam fetch a premium price of Rs 8 per nut since these nuts are bigger in size and also there is demand for Perumbalam coconut from hotels in Ernakulam. Copra processing is done on a small scale and coconut oil is extracted for domestic purpose alone.

The bearing palms in his plot are the West Coast Tall variety. Sreekumar himself identifies the mother palms and selected seednuts are raised in his plot. He has never purchased seedlings from outside. He claims that his seedlings are of high quality and he is able to supply good quality seedlings to his fellow farmers.

The intercrops mainly raised are banana; njalipoovan and palayankodan varieties. Sreekumar prefers to raise banana as intercrop as he feels that it improves the yield of coconut. Further, a banana bunch of about 10 kg fetches about Rs 200. Other vegetables raised in his field includes cowpea, little gourd, chilly, watermelon, pepper and various yams including tapioca. He procures the seeds only from Krishi Bhavans and Kerala Agriculture University. Tapioca was procured from the Central Tuber Crops Research Institute, Thiruvanathapuram. He has also planted nutmeg and cashew as perennial intercrops. All the intercrops are sold in the local markets in Cherthala and Poothotta.

Sreekumar is an active participant of ATMA and has developed demonstration plots for Sugar Baby variety water melon and hybrid cowpea. He is active in the programmes organized by Krishibhavan and Panchayat. He has been awarded the Best Farmer by the Perumbalam Panchayat. Sreekumar is keeping a close association with Coconut Development Board since long. He is a beneficiary of the cluster programme implemented in Perumbalam. He is also the Secretary of Perumbalam Farmers club.

Sreekumar advices coconut farmers to select good quality seedlings and to follow regular monitoring of palms for better yield. Negligence would lead to the loss of palms. Integrated farming should be adopted in order to balance the fluctuation in prices. He opines that value addition and diversification should also be attempted. After identifying the potential of tender coconut water market, he is planning to set up a tender coconut parlour in Cherthala. He believes that the value addition done by individual farmers cannot be profitable and is looking forward for the Coconut Producer's Societies which would offer good common platform for the farmers who are otherwise scattered. He is aware of the Friends of Coconut Tree training programme of the Board. Four youngsters have completed FOCT training from Perumbalam panchayath and he is happy to avail their services.

In his opinion, it is high time that coconut farmers should be organized in the pattern of rubber growers and he expects that formation of CPS would be a golden opportunity for reaping the best out of coconut farming.

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Technical Officer, CDB, Kochi - 11

A technocrat who opted for a different path

Deepthi Nair. S.*

This is the success story of a man who thought different, acted different and reaped fortunes. Tomy George had before him many attractive avenues when he graduated from Triuvandrum Engineering College in 1972 with flying colours. But he chose the path of his father and entered into the field of agriculture. Today he is the owner of 10 acres of land growing coconut, rubber, nutmeg, pepper, arecanut and cocoa along with mangosten, rumbutan etc. This coconut garden is in the midst of the rubber plantations in the district of Kottayam and that adds to its beauty.

Tomy George has over 120 coconut palms in his garden mainly comprising of West Coast Tall and Malayan Yellow Dwarf varieties. He has a few hybrids too, which he has bought from the University and Krishi Bhavan. The plantation is comparatively a younger one. The palms are in the age group of 25-30 and bearing on an average 150 nuts/palm/year. He has installed a vermi compost unit with the support of the Board and has been practicing mixed farming. Tomy adopts a systematic approach towards crop culture. He uses organic manures, neem cake, bone meal and fish meal as nutrient sources. Apart from this he also applies 1½–2kg of chemical fertilizers in 2-3 splits.

Tomy is a progressive farmer who has installed drip irrigation in his garden. The drip is fitted with a micro sprinkler at the top and so loss of water is totally avoided. Irrigation is provided using drip only during summer months twice a day. Approximately 100 liters of water is supplied per palm per day. He has a pond which is the source of water for irrigation. Fertigation is done through the drip using an imported water soluble fertilizer called 'Nitrofosco'.

The common problem of labour shortage has not affected the farm of Tomy, since he has 10 casual labourers. 80% of his produce is sold at the farm level itself at an average rate of Rs.9-10/- per nut. The smaller nuts are graded and separated and converted to copra. He has availed assistance from the Board and installed 2 copra dryers which are used for drying. Copra is converted to coconut oil which is sold as retail.

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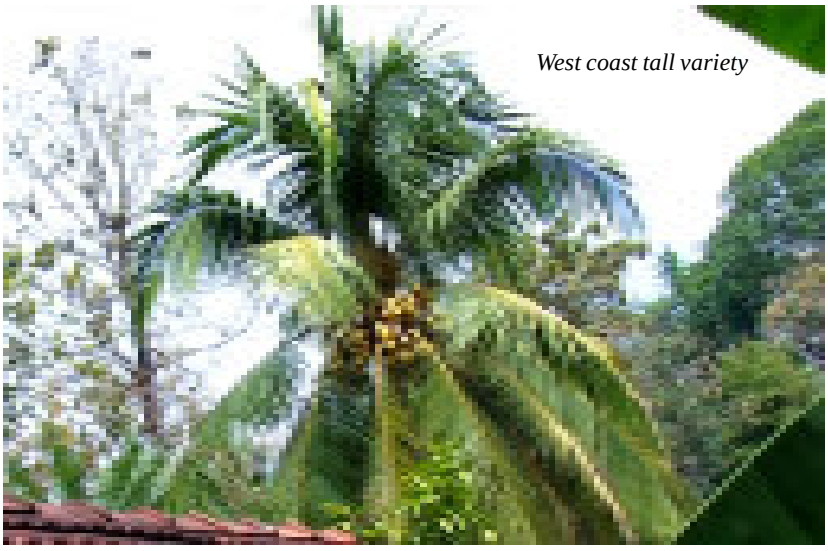


West coast tall variety

Gangakunju with her husband

Hard work: the key to success

Jayanath R* & Elizabeth Thomas**

Smt. Gangakunju is a coconut farmer residing at ward 13 of Clappana Panchayath in Ochira block in Quilon district. Her two and a half acre green and beautiful coconut garden on the side of back water attracts the attention of all passes by. Gangakunju is interested in farming from her early childhood itself as she was born and brought up in an agriculture family.

She has taken farming as a serious profession since the last 25 years. Her confidence that hard work will definitely pave dividend has been motivating her to continue in the field. She has developed her farm into a model farm wherein she is cultivating 110 West Coast tall varieties, arecanut, banana and tuber crops.

All the coconut palms of Gangakunju are healthy. She gets an average yield of 60-80 nuts per palm and even 100 nuts from some of her palms. 50 of her palms are in the yielding stage and around 50 are young seedlings. Gangakunju strictly follows the scientific management practices. She applies chemical fertilizers in June- July, September- October and in February, urea and super phosphate@1kg each and muriate of potash @2kg is applied to the palms. She has been practicing the application of chemical fertilizer since long. Along with the fertilizers mulching is also done with green leaves and coconut husk. Later on manures like cowdung and bone meal are also applied.

She considers irrigation as another important input to be adopted in coconut garden. She is irrigating the palms twice daily during summer months using the water from the well in her own compound.

As the palms in her garden are having less attack of pests and diseases, she doesn't require pesticide application often. She is worried as to whether her garden may get affected with pest and diseases as the neighbouring farmers are not treating agriculture seriously. Seven years ago her palms were affected by the eriophyid mite. She immediately applied the neem oil- garlic emulsion to prevent the spread of the attack.

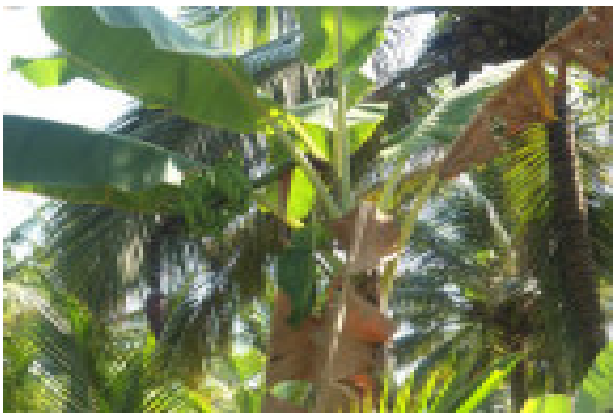
Gangakunju is a beneficiary of the Replanting and Rejuvenation programme of the Board. In the first stage of the implementation of the project, 12 of her root wilt affected palms were cut and removed. The trunk of the disease affected palms were burnt in the garden itself. She received the financial assistance of Rs.5000 from the Board. She also received chemical fertilizer and lime from the Board. She is happy that this timely assistance of the Board brought down her expenditure. She has planted good seedlings, which she herself had developed in her garden instead of the removed palms.

Earlier Gangakunju used to harvest the palms eight times in an year. Now because of the dearth of climbers and the high wages they are demanding she has brought down the harvesting cycles to five. She is selling her coconut to the merchants of the nearby Karunagapally market. She is getting on an average Rs.10 per nut. Recently she got Rs. 12.60 per nut. She has kept apart five, forty year old palms for collecting the seed nuts. Last year she supplied 150 seed nuts to the nearby Krishi Bhavan @ Rs.17/- per nut.

She is having more than 50 arecanut trees too in her garden. Tuber crops like elephant footyam, colocasia, lesser yam, sweet tapioca, ginger and turmeric are also grown as intercrops.

She claims that njalipoovan variety of banana grows well under the shade of coconut. She opines that growing banana is profitable as it requires less attention and is fetching better price too.

Gangakunju is cultivating various vegetables in her garden. She is selling the vegetables in the nearby market. Last year she got Rs.24 per kg for elephant



Coconut and banana

100 nuts from a palm

foot yam and Rs.30/- per kg for colocasia. Gangakunju is planting her cash crops in a manner that the period of harvest will coincide with the market demand for those crops such that it results to better price offer.

She says that the replanting and rejuvenation programme of the Board was in fact a relief to the farmers. These types of government programmes should always be welcomed. She is of the view that government agencies are showing more interest in agriculture now.

Gangakunju is planning to be a member of the Coconut Producers' Society. She is considering this as a last resort to the farmers. She firmly believes that farmers must have a common platform for having a say on their produces. Gangakunju is the recipient of the best farmer award of the local Krishi Bhavan. She was also honoured by the Quilon district bank.

Gangakunju gets the strong support and encouragement of her family which consists of her husband Thrivikraman a retired employee of Railways, her uncle Kuttappan Vaidyan who is 95 now and her son Kannan who is an engineer. Gangakunju is determined and confident that hard work, no doubt, is the key to success.

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** Technical Officer, Horticulture Assistant, CDB, Kochi-11*

Continuation from page 15

The author with Tomy George

The garden of Tomy gives the appearance of a small forest. He has practiced intercropping in his garden with maximum utilization of space and sunlight. Nutmeg is the major intercrop along with cocoa, arecanut and pepper. There are around 150 nutmeg trees which yield approximately 1500-2000 nuts per year. The sale of nutmeg fruits and mace is done at field level itself. He gets a farm price of Rs.300/- for nutmeg seed and Rs.1200-1500/- for dried mace. He also develops budded seedlings of nutmeg with increased resistance since he uses rootstocks of wild nutmeg which also has strong root system.

Shri.Tomy is a very active farmer and is in constant liaison with institutions involved in the development of agriculture. He participates in seminars and workshops and has also represented the farmers on behalf of the state in delegations and conferences. He is of the strong opinion that with good management and high yielding varieties, coconut cultivation will be highly profitable. He insists that appropriate measures have to be undertaken for ensuring the supply of good quality hybrid seedlings to farmers.

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** Marketing Officer, CDB, Kochi-11*

With an indepth passion for farming

Sasikumar C*

In the state of Kerala where farmers are facing the problem of poor yield and low income, here is the success story of a young businessman who with his incessant passion for farming earns better prospects from his nine acre land. He adopts innovative farm techniques and optimum resource utilization. Sajeev Antony (43) is a businessman who is running two ayurvedic medicine manufacturing units in Thrissur district in Kerala. But one thing you immediately notice upon meeting Sajeev Antony is his passion for agriculture. Along with his innate love and passion for agriculture, he is following the footsteps of his grand father who was a paddy farmer. At an early age he learnt the rudiments of farming by being a helper of his grand father.

Because of his passion for agriculture he thought of doing something innovative instead of continuing as a traditional paddy farmer in the nine acre ancestral property. Despite being a businessmen, he opted to be a farmer and manager of his own farm.

Sajeev knows that special care is required in selecting appropriate coconut varieties that are ideally suited to the agro-climatic conditions of his area. He planted Kuttyadi along with DxT coconut varieties in his garden. He is also having 30 Malayan Yellow Dwarf and Chowgat Orange Dwarf varieties. Now he is having more than 450 high yielding coconut trees in his garden and is getting on an average 130-140 nut per year per palm from his garden. Because of the better quality of the nut, he fetches better price for his produce. Nuts are procured directly from his farm. Caesalpinia sapan (Pathimukham) is used for live fencing in the garden

Sajeev is aware of the importance of irrigation in coconut. Sajeev knows that adopting good irrigation management strategy will definitely increase the yield. As water is available in plenty from the nearby canal, he is doing the basin irrigation. The basin is formed by reverse tilling.

As the land was a filled in area, the soil was not that fertile. He planted elephant foot yam as intercrop among coconut and 99% of his palms started yielding from the 4th year. While preparing the pits for the yam, he used to dump cow dung and composted coir pith in large quantities. Thus soil around the trees showed increased nutrient availability. Sajeev knows that restoring to soil health by reverting to non-chemical agriculture has assumed significance in attaining sustainability in production. Sajeev is a strong supporter of organic farming. In his search for eco friendly and farmer friendly alternate systems of farming, Sajeev is attracted by Subhash Palekar's Zero Budget Natural Farming which is increasingly becoming popular among the farming community. He too has started growing native breed of cattle which he believes is otherwise even an integral part of farming families.

Coconut with intercrops

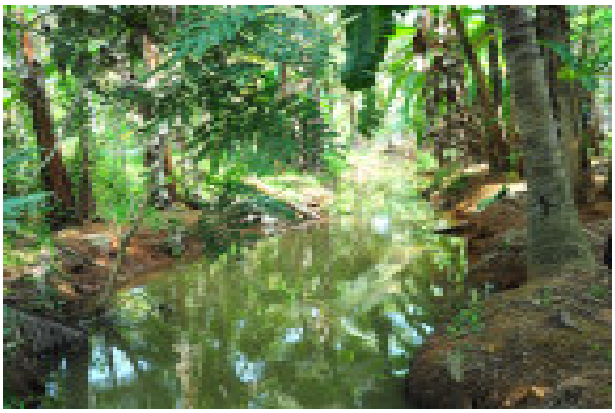
Farming is in fact an infatuation to Sajeev. His every day begins in his garden. He is known for his industrious nature of working in the farm before sunrise. Before being busy with his medicine manufacturing unit, he spends more than three hours in his garden. His farm is fully

A high yielding coconut palm

Banana, the best companion crop

intercropped with various intercrops. He is having 350 bearing nutmegs out of which 200 is giving good yield.

Sajeev is growing many fruit crops. There are more than 100 mangostenes in his garden which includes 30 yielding trees. Sajeev is cultivating many varieties of banana like Robusta, Nendran, Chembuvan, Kadali, Poovan etc. Apart from this he



With water in plenty

is also cultivating Rambutan, West Indian cherry, Mango, Sapota, Custard apple, Grapes, Orange, and different types of guava. Various varieties of medicinal crops are also grown in Sajeev's garden. Sajeev is having a poultry farm wherein he is growing various types of fancy chicken breeds, ducks and guinea. He is having pisciculture attached to his farm where he grows more than a dozen varieties.

Sajeev is getting an yearly income of Rs. 5 lakhs from coconut, Rs. 4 lakhs from banana, Rs. 3 lakhs from other seasonal crops and Rs. 50,000 from nutmeg. Sajeev is selling his vegetables and other seasonal crops to VFPCK.

Sajeev is a beneficiary of the Replanting and Rejuvenation Programme of the Board. He has received the financial assistance for cutting and removal of disease advanced senile palms. He has also received the fertilizers supplied by the Board as part of this scheme. Sajeev has heard of the Friends of Coconut Tree training programme of the Board and is hopeful that the programme would resolve the issue of the dearth of climbers to a greater extent.

Fancy chicken breeds

The mental satisfaction he gets from cultivating a large number of crops accelerates his enthusiasm to continue in farming. Moreover farming has never been a loss to him. His farm has served as a demonstration centre for coconut based farming system. Krishi Bhavan, Kuzhur has approached him to make his farm as a model farm. He affirms that dedication will definitely prove good result. Sajeev has to his credit a family which is very supportive. He finds support and inspiration from his wife, a pediatrician and their two kids.

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** Technical Officer, CDB, Kochi-11*

In the path of organic farming

Deepthi. R.*

Even though the state of Kerala is known for coconut tree, Idukki district is famous for the cardamom estates. Luka, a farmer from Kodikulam, Thodupuzha proves that there are farmers in Idukki district who prefers to grow coconut also.

The main crops in Luka's four acre land are coconut and rubber. He is also cultivating intercrops like pepper, arecanut and cocoa. Fodder crops are also grown in the boundaries. A pond is attached to his garden which is full with carp, cutla, rohu and silver varieties of fish. Luka claims that these varieties are having good demand in the market. Luka is now exploring to honey bee keeping too.

Luka is well aware of the environmental and health problems created by the excess usage of chemical fertilizers. Hence he emphasizes the importance of organic farming. He strictly and exclusively follows

High yielding palms in Luka's farm

organic farming in his garden. Since the last 15 years, he is a recognized organic farmer of Indocert.

Once when Shri.A.P.J.Abdul Kalam, former president of India visited Thodupuzha, he expressed his interest to have food which was exclusively developed with organic farming. Luka is so proud that the rice cultivated by him was taken for giving to Shri.Abdul Kalam.

Luka is following only environment friendly farming practices. Cow dung and cow urine are used as organic manures. He is also using ash, lime and bone meal. He affirms that if the cow dung of native variety cow is used as manure, the nuts will have better weight. If the cow is not native breed, it must be fed fodder grass more instead of cattle feed. Luka is keeping his cattle shed and its surroundings very clean.

Excerpts of the interview with Shri.Luka

How have you come to agriculture?

This farm land is an ancestral property. I am active in the field since 55 years. Earlier coconut was the main crop. The palms of Thodupuzha were famous for its best yield. The nuts are having higher copra content also.

Rich with intercrops

Which are the main crops you are cultivating now?

Coconut and rubber are the main crops. Pepper,cocoa and arecanut are the intercrops. Fodder crops and rice are also grown.

Is the soil and agro climatic condition of this area suitable for farming?

My land is in a sloppy area. Rubber and coconut

Fodder Grass

The Friends of Coconut Tree team in Lukas garden

are grown here. In the low lying land, paddy is cultivated. The soil mixed with organic residues makes the soil more fertile and crops are grown well here.

Which are the main package of practices you are adopting in your garden?

I am careful in providing each crop with different scientific management practices. I have avoided the chemical fertilizers fully. Neem cake, cow dung and green leaves are the main organic manures. Chemical fertilizers may boost the yield all on a sudden, but it will not help in the permanent yield.

His farming practices are rich with the utilization of different types of biocontrol agents like Pseudomonas and Trichoderma.

How do you control the pest and disease attack in your garden?

My garden is not much attacked by pests and diseases. Attack of the rhinoceros beetle is noticed in some trees recently. This pest attack is controlled with the beetle hook and the top three leaf axils of the palm are filled with neem cake sand mixture.

What are the advantages of organic farming?

When we shift from chemical fertilizer to organic manures, the yield would be less for the next two-three years. But later on the yield will come up. I usually get tapioca weighing 25-30kg and banana bunches of 18-20 kg.

What is your opinion on the commonly heard saying that coconut farming is not profitable?

Coconut should not be cultivated as a mono crop. Farming can be definitely made profitable if you are cultivating some intercrops too and scientific management practices are followed. When the price of coconut slid down, the intercrops will help to balance the income. Most of my palms are yielding more than 100 nuts per year. This yield can be accelerated further if we are taking one or two bunches for tender nut purpose.

Have you received any assistance from the governmental agencies?

Yes, I am a beneficiary of the integrated coconut development programme of the Board.

Have you heard about the new initiation of the Board like FOCT and CPS?

I have heard about both FOCT and CPS through the media. The FOCT trainees of Idukki district are visiting my farm to see and study the farming operation. I am hopeful that CPS would offer a common platform for the farmers.

Lucka being a progressive coconut farmer expects a better future for the farming community through the Coconut Producer's Societies. Adoption of a farming system which combines all the entrepreneurial possibilities will create a better status for the farmers. The Societies will reach the grassroots and will make the farming community stronger.

Luka is not aiming at high profit from farming. He is more health conscious of the next generation. He is concentrating in using the gift of nature wisely.

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**Technical Officer, CDB, Kochi - 11*

A golden investment from hard earned money

K.M. Vijayan*

"What you have done for your country is more important than what your country has done for you", is a famous saying of John F Kennedy, the former President of America. Shri. George Plakattil, a progressive farmer from Kannur district in Kerala believes that instead of finding out what the country has done for agriculture, try to find out what you have done for agriculture.

George Plakattil a national athlete during his academic days was an instructor at IIT Mumbai and later on was working in Germany for 11 years. It was with this hard earned money that he bought 17 acres of land in Kannur district. He planted 340 kuttiyadi varieties in 6 acre. He purchased land subsequently from the income he made from coconut and various other inter crops. Now he possesses more than 600 coconut trees. He is getting more than 60000 coconuts an year and his productivity is 150 nuts per tree per year. George was daring enough to remove his rubber and plant coconut. He also planted various intercrops including pepper and vanilla. When the price of vanilla was crashed, he wisely opted to plant nutmeg in between coconut. He is confident that if we are planting intercrops and also making value added coconut products, coconut farming is profitable than any other crop. His eldest son Robin George who has completed his B.Sc Chemistry is also with his father helping him in his farming.

Excerpts of the interview with Shri. George Plakkattil.

How have you been to and how long since you have been in agriculture.

I am cultivating coconut since my return from Germany 23 years back. I have been in coconut cultivation and presently I have more than 600 coconut trees which includes Kuttiyadi and Komadan varieties.

George with his son

Which are the crops you are rearing?

I have more than 600 coconut trees, 250 nutmeg, more than 1500 arecanut, rubber, vanilla, banana and various tuber crops.

What are the management practices you are adopting?

I am adopting 100% organic farming. Cow dung and other agriculture waste are put in the bio gas plant and the slurry is used as organic manure.

Mulching in the basin

Gliricidia is grown as cover crop. Moisture is conserved by burying dried coconut leaves and coir pith in the basin around the palms as mulch. Soil is conserved by making sand walls around the garden.

Which are the methods of irrigation and manuring you are adopting in your garden?

Irrigation is made through the drip system. Only farmyard manure, compost and green leaves are used for manuring.

Which are the plant protection measures you are adopting in your garden?

I am not using any pesticides in my garden. For the arecanut trees, bordeaux mixture is sprayed once in a year.

Is farming profitable to you?

Of course it is. Otherwise I wouldn't have quitted my job and become a full time farmer

What are your suggestions for making coconut farming profitable?

Proper soil conservation and irrigation must be ensured. The farmer himself must work hard with the labourers and must create a good relationship with the labourers. Plant only 50-60 coconut and inter crops in an acre.

Have you ever benefited by Government agencies?

Yes, I have been financially assisted by the Horticulture Mission in 2011 for drip irrigation.

Do you have any suggestions for making the approach of such agencies more farmer friendly?

Government agencies should come out to the field to identify the real farmer and must extend the assistance to them

Nutmeg gives better income

Mulching for nutmeg

Are you aware about the new initiatives of the Coconut Development Board like the Friends of Coconut Tree and the Coconut Producers Society?

I have heard about the training provided by the Board in coconut climbing and other plant protection operations. Many persons from our locality have attended the training. I am sure this initiative of the Board would definitely benefit the farmers.

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**Field Officer, CDB, Kochi-11*

A Self Made Farmer

Mridula K*

Sibi Francis (41) is a resident of Kattipara panchayat of Thamarassery in Kozhikode district. He has inherited 10 acre farm from his father. During his childhood, Sibi used to help his father in planting the seedlings and other related works for making pocket money. Since then he is assisting his father along with his studies. Sibi is grateful to his family especially his father who has teached him the basic lessons of agriculture. All the coconut trees planted by his father 60 years ago, are removed now. Sibi has replanted all of them with latest varieties of coconut. Sibi is confident that if there is a will there is a way. Agriculture should be treated as a business. Latest technological advancements need to be utilized for introducing mechanized farming. It will definitely make farming profitable.

Sibi's main crop is coconut. He is having 400 coconut palms out of which 350 are local west coast tall variety and the balance are 50 DxT variety which he himself has raised. The productivity per palm is 150 nuts /tree per year and his total production is more than 65,000 nuts per year. Arecanut (Mohit Nagar variety), Black pepper and Rambutan are the other crops he is rearing.

The soil of Sibi's field is red and black and he is strictly following the scientific management practices. Both organic and inorganic fertilizers are applied for coconut as well as for the intercrops. Cow dung, coconut mixture, bone meal and neem cake are applied as organic manure. A biogas plant is attached to his farm from which slurry is pumped to the field through channels. This is done during every month and once in a year chemical fertilizer mixed with the slurry is pumped to the crops. According to him, this practice solves labour problem and the uniform application of slurry to the palm helps in increasing the

Sibi in his farm

Banana and ginger as intercrops

Bio gas plant

production as it is properly mixed with the soil and reaches to the system.

Sibi is adopting the sprinkler system for irrigation. He is having a pond with sufficient quantity of water which makes irrigation possible all throughout the year. Mulching is done with dry leaves. Harvesting is done six times in a year.

Sibi is selling the nuts in the local market. Earlier Sibi used to convert coconut in to copra, but now due to labour problems he is selling the nuts directly to oil mills and local market after meeting his personal requirements. He opines that selling tender coconut fetches more income compared to mature coconut, as the rate of coconut fluctuates always. Due to labour problem, he has not yet started the sale of tender nuts, but he is hopeful that the trained Friend's of Coconut Tree would be helpful in future. Some of his palms were infected with root wilt disease. Immediately on noticing the same, he has cut and removed the palms.

Besides coconut, Sibi is growing intercrops like arecanut, black pepper, tapioca, nutmeg, ginger, turmeric, banana (Tissue culture and Poovan) and vegetables. He is making an income of more than Rs.1.50 lakh from the intercrops. He also grows fodder grass for his milch animals and earns an amount of Rs. 50,000/.

Sibi is also having pisciculture, poultry, goatary and bee keeping. He installed 10 honey boxes last year in his farm. The pollination of his coconut palms has improved after the installation of honey bee boxes.

Sibi Francis is the recipient of the best farmer award of his local Panchayat in 2010-11. He maintains a very cordial relation with the Krishi Bhavan and the Coconut Development Board. He has availed subsidy from Krishi Bhavan under the State Horticulture Mission for banana intercropping. He was the convenor of the cluster programme implemented by the Board during 2009-10 and 2010-11. In his opinion, the cluster programme of the Board encourages the farmers to follow systematic cultivation practices. Intercropping was also practiced which makes coconut cultivation profitable.

Sibi Francis's advice to other coconut farmers are that multiple cropping and mixed cropping has to be adopted for making coconut cultivation profitable. Good quality seedlings especially dwarf and hybrids are to be planted for getting good yield. More dwarf varieties must be planted for harvesting tender nut. Sibi does not allow his palms to grow after 40 years. He will cut and remove them and will replant good quality dwarf and hybrid seedlings.

Sibi appreciates the new initiatives of the Board viz. Friends of Coconut Tree and Coconut Producer's Society. He is inspirational in conducting the FoCT training programme at Krishi Bhavan at Kattipara. He is happy that the dearth of coconut climbers are solved to a greater extent now and the traditional climbers have also became regular. He is hopeful that the CPSs would help the farmers to sell their products with better price and will also encourage product diversification and value addition.

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** Technical Officer, CDB, Kochi-11*

A Kasaragodan success story in coconut farming

V G Chandrashekaran*

Kasaragod district in Kerala is famous for healthy and high yielding palms. According to 2010-11 statistics, coconut is cultivated in 52249 hectre in this district with a production 445.72 million nuts. The productivity of the district is 8531 nuts per hectare.

Good Fertilizer application, irrigation, availability of quality seedlings and the technical and financial assistance from the government agencies were instrumental for this good prospect. The untiring efforts of the people of this area who loves the soil and farming adds to this. Thus Kasaragod is figured as one of the best agri districts of Kerala.

Shri.Damodaran Nair (58) of Periya Village in Hosdurg Taluk in Kasaragod district is a dedicated model farmer. Nair's is an agriculture family which solely depends on the income from farming for their sustenance. He was born in an agricultural family and hence keeps a deep attachment with farming since his childhood itself.

Earlier he was cultivating rice and cucumber. Now he has converted into coconut farming and is cultivating 128 west coast tall and 2 hybrid varieties in his two acre farm. He is getting around 100-200 nuts from a tree. His average per tree productivity is 130 nuts per tree. He is selling 15000 nuts in an year.

Nair is adopting scientific management practices. Semi circle basins are made around the palm and chemical fertilizers and organic manures are applied during every year. With the onset of monsoon, 4kg lime, 25kg goat excreta, 20kg green leaves and 3kg bone meal are also applied. In August, 1kg potash and 1.5kg factomphos is applied. He is spending nearly Rs.180/- for a single palm for the fertilizer and manure application

Irrigation is another important practice on which Nair has no compromise. He is having a borewell in his garden. Water is pumped from the tank and the irrigation is done through hose to each palm @ 300 litres.

Harvesting is done thrice in a year. The climbers are charging Rs.15/-for a tree. Sale of nuts has never been a problem for Nair. He is getting a high price for his nut as he gets 17.5 – 18.0kg copra from 100 nuts. This is when his neighbours are getting only 13kg from 100 nuts. He is selling his coconut as raw nuts and last year he got upto Rs.10/- per nut.

Nair is also cultivating a variety of intercrops. Banana is the major intercrop. Turmeric and vegetables are also grown. He opines that 35 feet distance must be maintained between the palms for cultivating intercrops. Eventhough he couldn't follow this earlier, he is practicing it now.

A view of the garden

Nair is keeping a good relationship with the related government agencies. He was a beneficiary of the cluster programme of the Board and is a recipient of fertilizer and other benefits. He is of the opinion that these agencies must reach out to the farmers. He also believes that an awareness creation on agriculture among the young generation is essential for ensuring food security.

Nair doesn't have any bad experience in agriculture except for the price crash observed during the last few years. He firmly believes that native varieties can yield best results.

Address: A.Damodaran Nair, Pookalam House, Periya,Kasargod.Phone: 9961183545

Statistical Officer, CDB, Kochi - 11

Mohanraj, moves forward with determination

George Peter*

Mohanraj is a young hardworking farmer from Vadakarapathy in Palakkad district, Kerala. Mohanraj had to turn to agriculture with the death of his father who was a traditional farmer. Now Mohanraj has taken farming as a serious profession

Coconut is the main crop in his garden. He is having 260 palms out of which 50 are young seedlings. He is getting an average of 150 nuts per palm in a year.

Basin is made around the palm and he is applying 1kg urea, 1kg super phosphate and 2kg muriate of potash thrice in a year. Cow dung is also applied as organic manure. Mulching is done with farm waste and green leaves. Irrigation is done with drip system and the water from the well in his own property is used for irrigation.

Banana and coconut

Mohanraj in his garden

Coffee as intercrop

Harvesting is done at 45 days interval. Nuts are sold as raw nuts and merchants are collecting the nuts from his field. He is selling tender coconuts also which fetches him better income.

There is not much incidence of pest and disease in his garden. At the time of each harvest, crowns will be cleaned and the neem cake sand mixture is filled in the leaf axils. Boreadeux mixture is sprayed as a precaution against fungal attacks.

Tissue culture banana and coffee are cultivated as intercrop in Mohanraj's garden. He is also rearing 3 cows. Mohanraj is having the support of his family which consists of his mother, wife and son.

Mohanraj is the cluster convenor of the Thenampathy coconut cluster. He has availed the assistance of the Board as part of the integrated coconut development programme. He has avaited the financial assistance of the Krishi Bhavan for installing the drip system in his garden. Mohanraj is hopeful that the new initiatives of the Board viz. The Friends of Coconut Tree and the Coconut Producer's Societies would add a positive energy to the coconut farmers.

Address: Mohanraj, Thenampathikulam, Ozlapathy. P.O., Chittoor, Palakkad. Ph: 9746932831.

**Field Officer, CDB, Kochi-11*

A Civil Engineer turned Coconut Farmer

*R. Jnanadevan**

D. Ramesh, Sukkampatty village, Salem district of Tamil Nadu is a civil engineer turned to a model farmer. His coconut farm is situated in Sukkampatty village in Ayodhyapattinam block of Salem district, in the foot hills of Yercaud (hill station) Tamil Nadu. His well maintained 4.00 ha. garden with uniformly high yielding coconut palms with cocoa as intercrop declares that coconut faming is a profitable enterprise. According to him it is easy to maintain coconut compared to any other annual crops. He started farming in the year 2000 in the four hectare coconut garden inherited from his father, Duraisamy. His wife Dr. P.S.Kavitha, an Assistant Professor in Krishi Vigyan Kendra, Sandhiyur, Salem is also with him to assist in farming. This ideal couple is certainly a role model for today's young generation who are running away from agriculture. They love and respect farming as a viable profession. Although engaged as a civil engineer he had an intrinsic interest in farming from childhood onwards which he has translated into a practice since the last ten years. I got a chance to visit his garden with a group of farmers in connection with a farmers training programme on cocoa organised by the Directorate of Cashewnut and Cocoa Development in collaboration with Tamil Nadu Agricultural University.

Intercropped with cocoa

Mechanised cultivation practices

Cropping pattern and technology adopted

The cropping pattern adopted by him is mainly coconut-cocoa farming system. East coast tall variety of 625 palms aged 20 are planted in 8 x 8 m spacing in his 4 ha. area. In order to increase the income form the coconut garden cocoa hybrid plants were planted at 11 ft x 11 ft spacing, one row in between two rows of coconut and one plant at the middle of each row of coconut. Thus 1440 cocoa plants were planted in 2.5 ha in 2008 in collaboration with Cadbury India Ltd. and Department of Agriculture Tamil Nadu. As the soil is not suited for cultivating cocoa in the balance 1.5 ha. he is growing turmeric as inter crop. He has availed the financial assistance of the National Horticulture Mission @ Rs.20000/- ha. for developing cocoa plantation in his coconut garden.

Integrated nutrient management practices recommended by Tamil Nadu Agriculture University have been followed by Ramesh with maximum use of organic wastes. The organic waste available in coconut garden is dried and incorporated in to the soil by recycling. The nutrient schedule adopted is organic waste- 30 Kg, vermicompost- 5 kg, Urea- 0.75 Kg, Muriate of Potash- 1.50 kg, Single Super Phosphate- 1.50kg and Micronutrient mixture (iron, zinc, borax, copper, magnesium and manganese) - 100 gm per palm per year. Besides he is also applying

poultry manure @ 5 kg per palm in every alternate years.

Cost reduction methods adopted

Ramesh is using innovative methods for reducing the cost of coconut cultivation. One of the cost reduction and labour saving methods adopted by him is the use of power weeder for weeding and application of manure and fertilizer. He is not opening basin around the palm. Soil around the coconut palm is raked and is just mixed with fertilizer and manures and the top soil using the power weeder. Removal of weeds in the inter space by using Scythe or brush cutter is another innovative method used by the farmer to reduce the cost of production. The cost of bush cutter is Rs.25000.The Department of Agriculture, Tamil Nadu has given 50% subsidy for purchasing these machineries which help to minimize the labor cost considerably.

Drip system for irrigation

He irrigates coconut garden throughout the year through drip system of irrigation and maintains moisture content in soil, so that roots will get constant supply of water. Drip system has been installed in 4 ha of coconut garden. Drip irrigation is found very effective in coconut gardens. He irrigates the plants throughout year @ 45 liters of water per palm per day during dry period. Four such emitters are installed one meter away from the trunk.

Inter cropping with cocoa for additional income.

According to him coconut cocoa cropping system is more beneficial for both the crops. Coconut trees are given more care because of the maintenance of cocoa. Cocoa gets shade and performs well under coconut garden. Forty percent of cocoa plants comes to bearing in the 3rd year. Now they are in 4th year and nearly 70% of the plants have started bearing. In addition to extra returns, coconut is well maintained because of cocoa where compulsory pruning and fertilizer application, plant protection is done in the initial years of its establishment without which we cannot get any returns. Cocoa cultivation controls weed growth also. Fallen leaves of cocoa are a good source of manure to coconut and also soil moisture is conserved. The pods are used as animal feed for vermin composting. Coconut cocoa farming system is really a boon to the coconut growers. Unutilized inter spaces are well utilized, weed growth is controlled and thus cocoa and coconut are good companion/ compatible crop.

Cost of management practices and yield obtained and marketing

Ramesh is harvesting coconut once in 50 days (7 harvests). Traditional coconut climbers are available in the area. Average yield of his coconut palms is 140 nuts per tree per year, @ 20 nuts per tree per harvest. Cocoa is marketed through open market of Cadbury India Ltd as dry beans after primary processing. Cocoa is getting good price and the present market price in Salem is Rs.150 per dry bean. The cost adoption of scientific management practices for coconut and cocoa and income obtained is shown below:

Sl.	Cost of production /yr/tree (Rs.)	Coconut	Cocoa
1	Fertilizer and manure	50.00	10.00
2	Labour /maintenance	37.00	20.00
3	Plant protection cost	5.00	5.00
4	Harvesting and curing cost	28.00	15.00
	Total	**120.00**	**45.00**

Coconut yield -140 nuts /yr/palm
Income from one coconut tree - Rs.630/-
Expected Cocoa yield - 2.0 kg per tree /year
Additional income from cocoa-Rs.300/-

There is no severe attack of pest and diseases in his garden. Rhinoceros beetle and leaf blight for coconut and mealy bug and fruit rot of cocoa are the pest and diseases noticed in his garden. Every year plant protection measures are followed and these pests are controlled effectively.

Recognitions received

The highly profitable coconut cocoa farming system adopted by this innovative farmer has received wider recognition. His success story has received excellent coverage in the visual media (Makkal TV) in Tamil Nadu. Regular visit to his farm by progressive farmers and officers of the Horticulture department itself is a major recognition of farming skill demonstrated by him.

Address: Shri. D. Ramesh, (Mobile: 09847065335)

**Asst. Director (on deputation), CDB, Kochi-11*

Government of India hosts 45th Cocotech session

India is hosting the 45th Cocotech meeting of the Asian and Pacific Coconut Community (APCC) during 2nd–6th July 2012.

APCC is an inter governmental organisation head quartered at Jakartha, Indonesia with the mandate of integrated coconut development of the member countries. APCC is at present having 17 member countries and India is one of the founder members. COCOTECH is the technical arm of the APCC and it is held once in two years where the member countries present latest technological advancements in respective countries, hold discussion and decisions are taken for the future development of the industry. Cocotech serves as an open forum for researchers, processors, traders and policy makers to meet and exchange information relating to coconut industry. The APCC session of Plenipotentiary in its annual meetings approves the theme and venue of the COCOTECH meeting for the succeeding year.

India has so far hosted three Sessions ie., 4th APCC during 12-16 April 1971 at New Delhi, 25th session during 28th Nov– 2nd Dec 1998 at Cochin and 38th session during 5–8 Nov 2001 at Bangalore.

The theme of the 45th session of the Cocotech meeting is Inclusive growth and sustainable development of the coconut industry. This theme will cover a comprehensive range of technical sessions on the success stories of model coconut farmers and small to medium scale coconut processors and entrepreneurs. New technologies and R& D updates on coconut based farming systems, product diversification and coconut processing including the medical findings on the health attributes of coconut oil and virgin coconut oil and the developments in marketing coconut products will be discussed. The strategies on how to mitigate, adopt and cope with climate change will also be discussed in the meeting.

India was also the host country for three Cocotech meetings. Viz. 4th Cocotech during 12-16 April 1971 (along with 4th APCC session), 25th Cocotech during 23rd Nov – 2nd Dec 1998 at Cochin and 37th Cocotech during 24–28 July 2000.

Tender coconut parlour in Infopark, Kochi

As part of the Coconut Development Board's initiative to market tender coconut water across the country, Board is planning to set up 5000 Tender Coconut Parlours. The first parlour was inaugurated at Infopark, Kochi on 2nd February 2012 by Shri. Om Prakash, Additional Commissioner, National Horticultural Mission. Fresh tender coconuts will be directly supplied to the parlour by the Coconut Producers Society. Through the tender coconut parlours the Board hopes to provide the fresh produce of the farms directly to the consumer. The initial target for the parlour at Infopark is 1,000 coconuts a day. Similar parlours will be opened in other cities, important institutions, hospitals and tourist spots across the country. The Board plans to open 1,000 such parlours across Kerala and 5,000 throughout the country.

Shri. Om Prakash, Addl. Commissioner, NHM inaugurating the tender coconut parlour. Shri. M. Thomas Mathew, CCDO, CDB and Dr. A.K. Nandi, Secretary are seen

MSP fixed for raw coconuts

Government of India has fixed the MSP for dehusked coconut at Rs.1400 per quintal for 2012 season. The MSP for FAQ copra of milling copra is at Rs. 5100 per quintal and that of FAQ of Ball copra at Rs.5350 per quintal. NAFED will continue to act as the central nodal agency to undertake price support operations of copra for 2012 season.

Government of Kerala has permitted the Coconut Development Board recognized Coconut Producers Societies, coconut clusters, Kudumbasree and Janasree units having adequate infrastructure for production of copra to procure raw coconut at Government of India declared rates of Rs. 1400 per quintal from farmers coming under their area of operation and make FAQ grade copra and supply to the state level marketing agencies of National Agricultural Co-operative Marketing Federation of India Limited (NAFED).

Kerala Kerakarshaka Sahakrana Federation (Kerafed) and Kerala State Marketing Federation Limited (Marketfed) have been designated as the state level marketing agencies of NAFED for procurement of copra during the 2012 season in Kerala.

The national level meeting on Price Support Scheme (PSS) operation for Milling Copra held at the head quarter of Coconut Development Board at Kochi on 2nd February 2012 had requested the Government of Kerala and Tamil Nadu to notify designated agencies for procurement of milling copra from their states to commence the PSS operation at the earliest. The meeting also decided to request the Government of Kerala and Tamil Nadu to permit Coconut Producers Societies registered with the Board to procure coconut / copra from their members and to supply copra directly to state level agencies. The meeting chalked out the action plan and calendar of operation for the successful PSS operation for current procurement season 2012.

Shri. M. Thomas Mathew, CCDO, CDB chaired the meeting. Shri. V.P. Sasindran, Chairman and Shri. P.J. Sivakumar, Director, Kerafed; Shri. R.G. Nair, Branch Manager, NAFED, Kozhikode; Shri. N. Guruswamy, Branch Manager, Nafed, Chennai; Shri. Babu, Additional Secretary, Prices Board; Shri. K. Balasubramanian, Special Officer, Tanfed; Dr. K. Muralidharan, Director, CDB; Dr. A.K. Nandi, Secretary, CDB, senior officials of State Agricultural Department and the Board participated in the discussion.

Flamingo Festival

Coconut Development Board, State Centre, Hyderabad participated in Flamingo Festival 2012 held at, Sullurpet, Nellore District on 7th and 8th of January 2012. Shri Anam Ramanarayana Reddy, Minister for Finance, Planning, Small Savings and State Lotteries and Shri Vatti Vasant Kumar, Minister for Tourism, Culture, Archaeology and Museums, Government of Andhra Pradesh jointly inaugurated the exhibition and the CDB stall. Both the Ministers appreciated the initiatives taken up by the Board for the welfare of coconut cultivation and industry in Andhra Pradesh. Dr.Parasa Ratnam, MLA, Sullurpet, Shri B. Sreedhar, IAS, District Collector, Shri Ramana Kumar, IPS, Superintendent of Police and other VIPs visited the CDB stall. The exhibition featured various private/ public sector companies and state/ central government organizations. Board displayed informative posters, publications and value added coconut products. Leaflets, pamphlets and booklets related to coconut were also distributed to the visitors. The event was organized by District Administration, Government of Andhra Pradesh, Nellore District.

Shri Anam Ramanarayana Reddy and Shri Vatti Vasant Kumar ministers in the CDB stall.

Horti Food Fest 2012

Coconut Development Board, State Centre, West Bengal participated in 3rd Horti Food Fest 2012 at Netaji Indoor , Kolkotta from 16th to 18th January 2012. Shri. Janab Abu Hena, Minister in Charge, Department of Food Processing Industries, Horticulture and Fisheries, Government of West Bengal inaugurated the fair. Shri. Nure Alam Chowdhary, Minister for Animal Resources Development, Shri. Arup Roy, Minister for Agriculture Marketing, Dr. Mans Ranjan Bhunia, Minister for Irrigation, Waterways, Micro and Small Scale enterprises and textiles, Shri. Rabindranatha Bhattacharya, Minister for Agriculture and Shri. Rakesh Kacker, Secretary, Ministry of Food processing Industries were present on the occasion. Tender coconut vending machine manufactured by Fruit Hut, Hyderabad was displayed in the Board's stall.

A view of the Board's stall

The fair was jointly organised by the Department of Food Processing Industries and Horticulture, Government of West Bengal in association with the Indian Chamber of Commerce and Industry.

Sundarbon Krishi Mela

Coconut Development Board, State Centre, West Bengal participated in Sundarbon Krishi Mela at Sundarbon from 20th to 29th December 2011. Shri. Samaresh Banerji, Justice, Calcutta High Court inaugurated the Mela. Shri. Monohar Tirkey, MP and Shri. Subhas Naskar MLA were present during the occasion. Board displayed coconut products, handicrafts and informative posters. The exhibition was organised by Milan Tirtha Society.

Agri Horti Exhibition

Coconut Development Board participated in Agri. Horti. Exhibition from 21st to 23rd January 2012 at Mahatma Mandir International Complex, Gandhinagar , Gujarat. Shri. Ravi Baryon, President, Israeli India Chamber of Commerce inaugurated the fair. Dr. K. Sridharan Vice Chancellor, S.K.D. Agriculture University, Gujarat and Dr. R. A. Sherasia, state Nodal officer ATMA were present on the occasion. The fair was organized by Agro House , Gandhinagar, Gujarat and was supported by Department of Agriculture, Government of Gujarat, ATMA, NHM, A&H, APMC and KVK Gandhinagar. Display cum sale of various value added coconut products were held in Board's stall. The focus of Agri. Horti. Exhibition was on Seeds, Food Processing, Farm Machinery and Equipments, Agro Chemicals, Agri. Logistics, Retail and Distribution sectors.

A view of the Board's stall

A number of enquiries were also received for various value added coconut products lke coconut water, coconut oil, virgin coconut oil, desiccated coconut powder etc.

Shri. Om Prakash IES, Addl. Commissioner (NHM) reviewed the schemes of the Board

Shri. Om Prakash, Additional Commissioner, National Horticulture Mission visited the head quarter of the Coconut Development Board on 1st February 2012 and held discussions with Shri. M. Thomas Mathew, CCDO, CDB and Dr. A.K. Nandi, Secretary, CDB on the present implementation status of various schemes of the Board. He inaugurated the Tender coconut parlour at Infopark, Kakkanad, Kochi on 2nd February 2012. The tender coconut parlour is an initiative of the Pappanchalla Coconut Producers' Society, Muthalamada, Palakkad promoted by CDB under the market promotion scheme.

Shri. Om Prakash, along with CDB officials visited Kulasekharapuram, in Kollam district for reviewing the status of the replanting and rejuvenation of coconut gardens at Kollam district implemented by the Board as a pilot project. He interacted with the convener and members of the clusters, panchayat president and secretary to ascertain the implementation status of the scheme. Shri. OM Praksh expressed his satisfaction on the implementation of the replanting and rejuvenation scheme of the Board. He suggested to extend the scheme in the 12th five year plan to the four southern districts of Kerala viz., Alappuzha, Ernakulam, Kottayam and Pathanamthitta where the rootwilt disease of coconut is mostly prevalent.

Shri. Om Prakash further visited Socio Economic Unit Foundation, Sarvodayapuram, Alappuzha where the 13th batch of Friends of coconut tree (FOCT) training of Alapuzha district was being held wherein 23 trainees including 6 women attended the training. He had interaction with Smt. Kochurani, Exe Director, SEUF and also with the trainees.

On 2nd February, Shri. Om Prakash visited units assisted by the Board under the Technology Mission on Coconut viz. Indo-German Carbons Ltd, at Binanipuram, Kerala, Green Indus Group at Kodungalloor and AMS Group of Companies, Pattambi.

He also visited the LODP cluster areas at Kozhipathy village of Palakkad Dist and had interactions with the convener and members of the clusters. He expressed his satisfaction on the implementation of the scheme by the Board. On 3rd February, Shri. Om Prakash visited the cluster area of the LODP project at Pollachi and had interaction with more than 100 farmers of the area. Shri. Om Prakash also visited coconut units assisted by the Board viz. M/s. Sakthi Coco Products, Pollachi and Super Coco Company, Pollachi.

Field visit -Replanting and Rejuvenation Programme, KSPuram, Kollam

Visit at coconut oil industry, Pattambi

Science Expo 2012

Shri K.R. Kuttikrishnan, Deputy Director interacting with the students from Krishnaveni Talent School, Siddipet at Science Expo 2012

Coconut Development Board, State Centre, Hyderabad participated in Science Expo 2012 from 19th and 20th January 2012 at Rimmanaguda, Gajwel Mandal, Medak District.

Shri T. Narasa Reddy, MLA, Gajwel inaugurated the exhibition. Board displayed informative posters, publications, value added coconut products and handicrafts. Leaflets, pamphlets and booklets related to coconut were distributed to the visitors. Students from different schools and colleges, local farmers and entrepreneurs visited the Expo.

Fruit and Vegetable Show 2012

Coconut Development Board, State Centre, Hyderabad participated in the XIII Flower, Fruit and Vegetable Show 2012 from 6th to 8th of January 2012 at Yanam organized by Department of Agriculture, Government. of Puducherry.

Shri Jawahar P, IAS, Regional Administrator at Regional Administration, Government of Puducherry, Yanam inaugurated the exhibition. Central and State Government Institutions, Research Institutes and private organisations took part in the show.

Students from Junior College, Government of Puducherry in Board's pavilion.

Board showcased different coconut products, bye-products and handicrafts in the stall. Various value added coconut products including coconut based food and beverage products, handicrafts made of coconut wood, husk and shell, technical charts, posters, flexi banners and publications of Board were displayed in the stall.

TANFED to commence copra procurement in Tamil Nadu

TANFED has been notified as the state level designated marketing agency in Tamil Nadu to undertake copra procurement under price support scheme for the 2012 season as per the order issued by the government of Tamil Nadu through the Food and Consumer Protection Department. Accordingly TANFED will procure milling copra at the rate of Rs. 5100 per quintal (Rs.51/- per Kg.) and ball copra at the rate of Rs.5350/- per quintal (Rs.53.50/- per Kg.) under the price support scheme for the year 2012.

Retired

Shri. V Sarvothama Prabu, Assistant retired from the service of the Coconut Development Board on 31st January 2012. He has rendered 30 years of service in the Board. He joined the Board in October 1982.

Shri. P P Anadan, UDC retired from the service of the Coconut Development Board on 31st January 2012. He has rendered 30 years of service in the Board. He joined the Board in April 1982.

Board invites Projects for large scale production and distribution of quality planting materials

Coconut Development Board proposes to launch a research project in collaboration with various educational institutions having Post Graduate Degree programmes in science preferably Botany, Bio-technology etc. for production of hybrid coconut seedlings under Technology Mission on Coconut programme. The objective of the collaborative research scheme is large scale production of dwarf and hybrid seedlings (5 lakhs root wilt disease tolerant and high yielding seedlings) through hybridization techniques. In Kerala at present the average requirement of seedlings estimated is around 30 lakhs per year for new planting, gap filling and replanting.

Colleges and Post Graduate departments in Science preferably in Botany, Bio-technology etc having qualified manpower and adequate infrastructure facilities for carrying out research can forward proposals to the Board for assistance under the scheme. The project will be implemented on 50:50 basis by the Board and the concerned Departments / Institutions. Detailed proposal with costings for mother palm selection, training on hybridization techniques and raising of nursery etc. can be supported by the Board, so that 50,000 seedlings per year can be produced by each college from the third year onwards. A detailed project report incorporating objective, methodology, technical content, manpower, costing, project period, outcome and share of the Board/ Institution should be submitted by the institution.

Board's pavilion bagged the best display award in NERAMAC-2011

Board's pavilion bagged the best display award in NERAMAC- 2012 Exhibition from 27th to 28th January 2012, held Andheri (E), Mumbai Maharashtra. Board received the award from Shri. P.W. Khongjee, Parliamentary Secretary, Tourism Government of Meghalaya. P.K.Pattanaik, IAS, Joint Secretary, DoNER inaugurated the fair. Mr.Bijay Kumar, IAS, MD, National Horticulture Board, Dr.N.C.Saha, Director, Indian Institute of Packaging, Mumbai, Mr. P.W. Khongjee, Parliamentary Secretary, Tourism, Govt. of Meghalaya and Shri. S. Bhattachryajee MD, NERAMAC were present during the occasion. The fair was organised by North Eastern Regional Agriculture Marketing Corporation Ltd., Government of India Enterprises, Guwahati, Assam and the Ministry of Tourism, Government of Meghalaya. Board displayed various value added coconut products like packed tender coconut water, coconut oil, coconut milk powder, virgin coconut oil, handicrafts etc.

Board receiving the Award from Shri. P.W. Khongjee, Parliamentary Secretary, Tourism Government of Meghalaya

Krishimela - 2012

The Coconut Development Board, Regional Office, Bangalore participated in the State level 32nd Krishimela - 2012 held from 19th to 21st January 2012 at Haveri, Karnataka. Shri Jairam Ramesh, Minister for Rural Development, Government of India, New Delhi inaugurated the mela. Dr. Thontada Siddalinga Mahaswamy, Gadag, Shri. C.M. Udhasi, Minister for PWD, Government of Karnataka and Shri. Jadageesh Shettar, Minister for Rural Development, Government of Karnataka were present on the occasion. Board showcased different varieties of coconut bunches and value added products. Around five lakh farmers visited the Krishimela.

Awareness Programme on Coconut Production Technology

An awareness programme on Coconut production Technology with special reference to pest and disease management and value addition in coconut was conducted on 12th January 2012 at Taralabalu Krishi Vignana Kendra, Davanagere in connection with the celebration of Foundation Day of Coconut Development Board. The programme was organised in association with the Department of Horticulture.

A view of the Dignitaries (from L-R) Smt. K.R.Nethravathi, Board Member, Mr. Vijayakumar Hallikeri, DD,CDB,Mr.Guthi Jambunath, IAS., CEO,ZP,Davanagere, Dr. Basavarajappa, Retired Additional Director of Horticulture, Mr. Kadire Gowda, Dy., Director of Horti., Davanagere & Dr. T.N.Devaraju, Programme Co-ordinator, TKVK., Davanagere.

Shri. Guthi Jambunath, IAS., Chief Executive Officer, Z P, Davangere inaugurated the programme In his inaugural address he requested the Board to take necessary initiation for marketing the produce so that the coconut growers get benefited by way of getting better price. Smt. Netravathi, Member, CDB delivered the presidential address.

Dr. T.N. Devaraju, Programme Co-ordinator, TKVK., Davanagere made a special address wherein he requested the farmers to adopt intercropping in coconut to get better income from the unit area. Dr. Kadire Gowda, Deputy Director of Horticulture, Davanagere also spoke on the occasion and spoke on the Schemes of the National Horticulture Mission implemented in Davanagere District. Dr. Basavarajappa, Retired Additional Director of Horticulture spoke on the occasion representing the farmers community.

Shri Vijayakumar Hallikeri, Deputy Director, CDB in his welcome address spoke on the schemes and programmes of the Board. He requested the farmers to adopt scientific package of practices to get more benefit in increasing the production and productivity and controlling pest and diseases. Shri Channaveerappa, SADH., Davanagere proposed a vote of thanks.

In the technical session that followed, Shri. M.G. Basavana Gowda, Subject Matter Specialist, Horticulture, TKVK, Davanagere spoke on the recent advances in coconut cultivation practices, Dr. N. Prasanna Kumar, Subject Matter Specialist, Plant Protection TKVK, Davanagere spoke on the recent advances in pest and disease management in coconut garden, Shri Vijayakumar Hallikeri, Deputy Director, CDB., RO., Bangalore made a presentation on value addition in coconut and Technology Mission on Coconut and Shri Yogananda Bhandya, SADH made a presentation on the schemes of the Department of Horticulture.

The meeting was attended by 300 progressive farmers, entrepreneurs and departmental officers from various institutes participated in the programme.

Republic Day Horticulture Show- 2012

The Coconut Development Board, Regional Office, Bangalore participated in the Republic Day Horticulture Show - 2012 held from 20th to 29th January 2012 at Lalbagh, Bangalore organized by the Mysore Horticultural Society, Lalbagh, Bangalore in association with the Department of Horticulture, Government of Karnataka. The Horticulture show was inaugurated by Chief Minister D.V. Sadananda Gowda. Dr. D.Hemachandra Sagar, MLA, Smt. Sharadamma, BBMP Mayor, Smt. Vandita Sharma. IAS, Principal Secretary (Horticulture) and Smt. Hemalatha, IAS, Director of Horticulture were present on the occasion. Board showcased different varieties of coconut bunches and value added products .

Monthly operations in coconut gardens

March

Andaman & Nicobar Islands: Continue watering the nursery. Start collection of seednuts from the mother palms. Store them for about one month before sowing. Prepare land for new plantation by removing weeds and cutting down unwanted plants.

Andhra Pradesh: Search for rhinoceros beetles on the crowns of the palms with beetle hook and kill the beetles. Fill the top three leaf axils of the palm with a mixture of 25g sevidol 8G with 250g fine sand. Spray the manure pits with 0.01 per cent carbaryl. Continue irrigation. Collect seednuts from selected mother palms. Release parasitoids if the attack of black headed cater pillar is noticed, particularly in coastal belt. If the palms are infected by scale insects, spray the palms with 0.01 per cent malathion or fenthion.

Assam: Dig isolation trenches of one metre depth and 30 cm width two metres away from the base of the Ganoderma affected palms. Cut down and destroy the affected trunk of dead palms in the garden. If planting pits have not been dug in January or February dig them during this month and fill up with top soil+sand+cow dung manure mixture up to 60 cm for transplanting. After one or two showers, bring the soil to a fine tilth around the palms. Start preparing the nursery beds for sowing of seednuts.

Bihar/Jharkhand: Irrigate the palms. Apply plant protection chemicals to avoid attack of pests and diseases. Repair the irrigation channels. Prepare the land and dig pits of 1m x 1m x 1m size at a spacing of 8m x 8m. Replant/ transplant the seedlings in low-lying areas where flood water is a problem. Adopt surface planting if water table is high. Check for the incidence of termite attack, especially in young palms. For the management of termite, adequate soil moisture is a prerequisite. Drench the nursery with 0.05 per cent chlorpyriphos twice at 20-25 days interval. Fill the top three leaf axils of the palms with 25g Sevidol 8G mixed with 250g fine sand to prevent rhinoceros beetle/red palm weevil attack.

Chhattisgarh: Irrigate the palms, nursery and inter crops in the garden. Search the palms for the . Remove weeds from the garden. Plough the land and mulch the basins. Plant summer vegetables and other intercrops. Apply vermi compost to coconut palms.

Karnataka: Irrigate the garden. Give 70-80 litres of water per palm per day under drip irrigation. Plant suitable intercrops under irrigated conditions. Check the attack of rhinoceros beetle. Clean the crowns of the palm and fill top 3 leaf axils of the palms with a mixture of 25g sevidol with 200 gm fine sand. Fill the leaf axils with two naphthalene balls covered with fine sand at 45 days interval. Treat manure pits and other possible breeding sites of rhinoceros beetle with carbaryl (0.1 per cent) which is to be repeated in every three months. Spray 1 per cent bordeaux mixture against leaf spot. Adopt integrated control measures against the attack of leaf eating caterpillar. Release parasitoids of suitable stage immediately after noticing the infestation and subsequently three times at fortnightly intervals. For tall plants and large orchards a combination of biological and chemical methods are suggested. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal@ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth immature bunches. In order to improve the nutrient status of the soil grow green manure crops like daincha in the basins of the palms and incorporate into the soil within 45 days. Apply

organic manure @ 25 kg/ tree/ year. Provide neem cake @5 kg / tree/year.

Kerala/Lakshadweep: Continue irrigation. Continue collection of seednuts from selected mother palms and store them in a cool dry place. Apply one fourth of the fertilizers in irrigated gardens. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal@ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth immature bunches.

Maharashtra/Goa/Gujarat: Undertake hoeing in the garden. Remove the grasses and shrubs and burn them. Check for attack of pests/diseases and take appropriate steps to control them. Ensure irrigation. Start collection of seednuts for raising seedlings.

Odisha: Irrigate the palms. Remove weeds from the garden. Mulch with dry coconut leaves and coirpith for moisture conservation. Collect seednuts from selected mother palms and store them in cool and dry place. Spray the palms affected by leaf eating black-headed caterpillar with 0.02% dichlorvos or malathion 0.05 per cent. Repeat the spraying after an interval of 15 days if the attack is severe. Before spraying, cut down the affected leaves and burn them to prevent further infestation. Alternatively liberate parasites of black-headed caterpillar on the affected palms after 15 days of spraying. Palms on which the parasites have been released should not be sprayed with insecticides as it will kill the parasites also. If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal@ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth immature bunches.

Tamil Nadu/Puducherry: If the attack of mite is noticed, spray neem oil formulation containing 0.1 per cent Azadirachtin / Neemazal@ 4 ml/ litre of water. The spray droplets are to be directed towards the second to fifth immature bunches. Spraying has to be done especially on the perianth region of buttons and affected nuts. Wherever spraying is difficult root feeding may be done with Azadiractin 50% formulation 7.5 ml in 7.5 ml water. Continue irrigation. Treat manure pits and other possible breeding sites of Rhinoceros beetle with 0.01 per cent carbaryl to control grubs. Continue collection of seednuts from selected mother palms and store them in a cool dry place.

Tripura: Irrigation should be continued and the frequency of irrigation should be based on the quantum of rainfall received. Regular irrigation will improve the production of bearing plants.

West Bengal: Continue irrigation. Apply 200 litres of water in basin twice a week depending upon moisture retention capacity of the soil. If drip irrigation is adopted give 70 to 80 litres of water per palm per day. Provide proper shade to newly young seedlings. Mulch the basins with coconut husk, green leaves, dried coconut leaves in 3 to 4 layers or spread coir pith in six-inch layer for moisture conservation. Harvest mature nuts. Collect the seednuts from the selected mother palms, which are regular bearers and have an annual yield of hundred nuts and above. Store the collected seednuts in shade. Check for the attack of rhinoceros beetle (triangular cuttings in new spindle leaves). Hook out the beetles from affected palms. Clean the crowns of the palms and fill the top most axils of the palms with 25g sevidol 8G with 250g fine sand at 45 days interval. Treat manure pits once every three months with carbaryl (0.1 %). If bud rot is noticed remove all the affected portions. Treat the wound with Bordeaux paste or paste of Blitox. Spray the crown with Blitox @ 5g per litre of water or Dithane M 45 @ 2 g per litre of water. To manage eriophyid mite infestation, spray the crowns with 0.1 per cent Azadiractin (Neemazal) @ 4.0 ml per litre of water. The spray droplets are to be directed towards the second to fifth immature bunches. Alternately, root feeding with 7.5 ml of Neemazal (5%) dissolved in 7.5 ml of water can also be done. Plough the interspaces and destroy weeds. Grow summer vegetables and flowers like marigold as intercrop.

Market Review December 2011

Highlights

- The price of milling copra, ball copra and coconut oil expressed a downward trend at all the major markets during the month under report.
- The international price of coconut oil expressed a downward trend during the month under report. The domestic price of coconut oil at Kochi market was marginally higher than that of the international price.

COCONUT OIL

The price of coconut oil quoted at all the major marketing centres in the country expressed a downward trend during the month under review. The weekly average prices at Kochi market varied between Rs.7125 and Rs.7625 per quintal. The monthly average price of Rs.7406 per quintal was about 7 percent lower than the price in December 2011 and about 18 percent lower when compared with the price in January 2011.

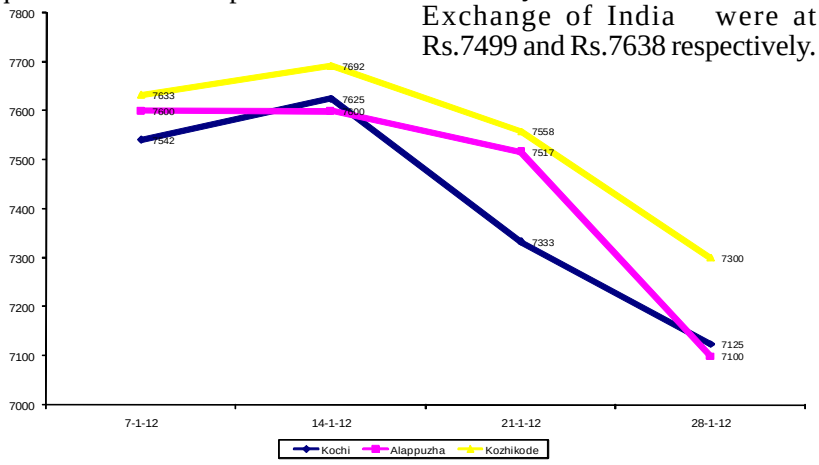
The price of coconut oil at Alappuzha market also moved in tune with the price behavior at Kochi market. The weekly average prices ranged from Rs.7100 to Rs.7600 per quintal.

The weekly average prices of coconut oil at Kozhikode market, varied between Rs.7300 and Rs.7692 per quintal. The monthly average price of Rs.7546 per quintal was about 5 percent lower than the price in December 2011 and about 18 percent lower than that of the corresponding month last year.

Harvesting season in Kerala has already started from the first week of January 2012 and will start in February in Tamil Nadu which will cool up prices. Demand for copra and coconut oil will also fall as the festive season was over in January.

The monthly average price of coconut oil at Kochi market projected by the First Commodities Exchange of India Ltd. for the month of January 2012, during October 2011 November 2011 and December 2011 were Rs.8077, Rs.8390 and Rs.7928 respectively, while the average spot price ruled at Kochi was Rs.7406 per quintal.

The Futures Prices quoted for the next two months of February and March during the current month by the First Commodities Exchange of India were at Rs.7499 and Rs.7638 respectively.



Price behaviour of coconut oil during January 2012

MILLING COPRA

The weekly average prices of FAQ copra at Kochi market ranged from Rs.4913 to Rs.5175 per quintal. The monthly average price of Rs.5061 per quintal was about 7 percent lower than that of the previous month and about 18 percent lower than that of the corresponding month last year. The weekly average prices of Rasi copra at Alappuzha market varied between Rs.4850 and Rs.5308 per quintal. The monthly average price of Rs.5025 for "Office Pass" copra at Kozhikode market was about 6 percent lower when compared with the price in December 2011 and about 18 percent lower when compared with the price in January 2011.

The weekly average prices of milling copra at Ambajipeta market in Andhra Predesh ranged from Rs.4300 to Rs.4333 per quintal.

EDIBLE COPRA

The weekly average prices of Rajapur copra at Kozhikode market varied between Rs.6675 and Rs.7475 per quintal. The monthly average price of Rs.7019 per quintal was lower by 9 percent compared to the price in previous month and marginally higher than that of the corresponding month last year.

The weekly average prices of ball copra at Kozhikode market varied between Rs.5983 and Rs.6683 per quintal.

The weekly prices of ball copra at APMC market Tiptur, in Karnataka varied between 6115 and 6280 per quintal. The monthly average price of Rs.6347 per quintal in December 2011 slid to Rs.6208 in January 2012.

The weekly average prices of ball copra at Bangalore market ranged from 6407 to 6500 per quintal. The weekly average price of Ball copra at Arsikere APMC

market, varied between Rs.6108 and 6283 per quintal.

DRY COCONUT

The monthly average price of Rs.6421 per thousand nuts for dry coconut at Kozhikode market was marginally lower than that of the previous month and about 11 percent higher than that of the corresponding month last year.

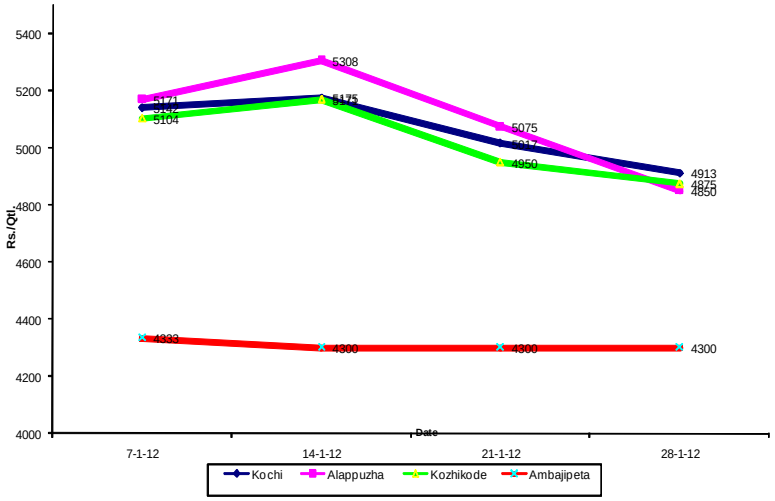
COCONUT

The monthly average price of Rs.7375 per thousand nuts for dehusked coconut at Nedumangad market was marginally lower than that of the previous month and about 26 percent lower than that of the corresponding month last year.

The monthly average price of partially dehusked coconut at Arsikere APMC market in January 2012 improved to Rs.6688 per thousand nuts from Rs.6267 in December 2011.

The weekly average prices of partially dehusked coconut at Bangalore APMC market ranged from Rs.6583 to Rs.7000 per thousand nuts.

The monthly average price of partially dehusked coconut Grade-1 quality at Mangalore APMC market in January 2012 slid to Rs.10592 from Rs.10133 in December 2011. The weekly average prices ranged from Rs.10575 to Rs.10608 per thousand nuts.



Price behaviour of milling copra - January 2012

TENDER COCONUT

The weekly average prices of tender coconut at Kochi market ranged from Rs.18 to Rs.20 per nut.

INTERNATIONAL PRICE

The monthly average price of US $1454 per MT for coconut oil in Europe (C.I.F. Rotterdam) for the month of January 2012 was marginally lower when compared with the price in previous month and lower by about 30 percent compared to that of the corresponding month last year. The monthly average price of US$ 865 per MT for copra was marginally lower than that of the previous month and about 36 percent lower than that of the corresponding month last year. The domestic price of US$1500 for coconut oil at Kochi market was marginally lower than that of the international price.

The domestic price of coconut oil during the month of January 2012, in Philippines was US$1400 per MT and in Indonesia; the price was US$1380 per MT. The international price of Palm oil, Palm kernel oil and Soybean oil were US$1055, US$1340 and US$ 915 per MT respectively, while the price of coconut oil in international market was US$1454 per MT and the domestic price in India was US$1500 per MT.

Market Price

Date	Coconut Oil			Milling Copra				Edible Copra	Ball Copra				Dry coconut	Coconut	Partially dehusked coconut		
	Rs./Qtl.												Rs./1000 nuts				
	Kochi	Alappuzha	Kozhikode	Kochi (FAQ)	Alappuzha (Rasi Copra)	Kozhikode	Karkala	Kozhikode	Kozhikode	Tiptur	Bangalore	Arsikere	Kozhikode	Nedumangad	Arsikere	Bangalore	Mangalore (Grade-1)
7-1-12	7542	7600	7633	5142	5171	5104	4333	7475	6683	6280	6500	6283	6417	8000	6250	6583	10608
14-1-12	7625	7600	7692	5175	5308	5171	4300	7025	6317	6214	6500	6250	6617	7500	6500	6683	10600
21-1-12	7333	7517	7558	5017	5075	4950	4300	6900	6200	6224	6500	6250	6550	7000	7000	6933	10583
28-1-12	7125	7100	7300	4913	4850	4875	4300	6675	5983	6115	6407	6108	6100	7000	7000	7000	10575
Average	7965	7997	7982	5437	5456	5357	4593	7678	6878	6347	6320	6318	6433	7400	6267	6867	10133

Source: **Kochi:** Cochin Oil Merchants Association and Chamber of Commerce, Kochi - 2, **Kozhikode:** The *Mathrubhumi* daily **Alapuzha:** The *Malayala Manorama* daily, **Arsikere :** APMC, Arsikere

Price quoted for *office pass* copra at Kozhikode and *Rasi* copra at Alappuzha markets. NT : No transaction

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