



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

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ICAR-KVK ERNAKULAM NEWSLETTER

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MANDATES

The overall mandate of KVK is to develop and disseminate location specific technological modules at district level through Technology assessment, refinement and demonstration and to act as knowledge and resource centre for agriculture and its allied activities for the whole district. The specific activities envisaged to carry out this mandate are:

- Conducting on-farm testing to identify the location specificity of agricultural technologies under various farming systems
- Organizing frontline demonstrations to establish production potential of various crops and enterprises in farmers fields
- Organizing need based training for farmers to update their knowledge and skills in modern agricultural technologies related to technology assessment, refinement and demonstration, and training of extension personnel to orient them in the frontier areas of technology development.
- Creating awareness about improved technologies to larger masses through appropriate extension programmes.
- Production and supply of good quality seeds and planting materials, livestock, poultry and fisheries breeds and products and various bio-products to the farming community.
- Work as resource and knowledge centre of agricultural technology for supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district.

Director's Message



The ICAR-Central Marine Fisheries Research Institute is fulfilling its social commitment of assisting farmers and public through its unit KVK (Ernakulam). KVK is a knowledge and resource centre for agriculture and its allied activities for the whole district. Knowledge dissemination in KVK happens in many ways like trainings, demonstrations, input supply, advisory

services etc. The major thrust area where KVK-Ernakulam is working is production of safe food. In order to achieve this goal, we have various programmes. The sales counter at CMFRI near high court junction supply organic inputs at its purest form to ensure hassle free farming to produce safe food. We appreciate that quality seed material is the primary requirement of farmers. Keeping this in view, we have commenced few satellite seed production centres across the district which ensure seed production under close technical guidance of KVK professionals. KVK is operating a project to set up Satellite Pearlspot seed production centres with funding from National Fisheries Development Board. Similarly we are looking for participation of farmers in such activities so as to operate KVK projects in Public-Private-Participation (PPP) mode.

KVK is in the process of empowering farmers by bringing them into collectives by registering Farmer Producer Companies. The NABARD has extended financial assistance to this project. It is envisaged that farmers can be self sustainable in production and marketing. Branded marketing of Pokkali produce, farmer facilitation centre, etc are envisaged in this direction.

There is urgent requirement for cultivating interest on farming among youngsters to ensure sustainability of this primary production sector in coming years. KVK intend to create examples across the district which showcases young farmers as profit making farm entrepreneurs. This would definitely attract further youngsters to this field.

The objective of this Newsletter is to spread information about the programmes of this KVK during first half of 2016-17 with a view to invite fruitful future collaborations from peer institutions, line departments, research organizations and most importantly, the farmers to work together in the coming years for the betterment of farming in the district.



A. Gopalakrishnan



with best compliments from

Dr. A. Gopalakrishnan
Director
ICAR-CMFRI

Dr. Shinoj Subramannian
Sr. Scientist & Head
ICAR-KVK Ernakulam of CMFRI

Awareness programme on Pradhan Mantri Fasal Bhima Yojana (PMFBY) crop insurance scheme

KVK conducted a district level awareness programme on PMFBY, new crop insurance scheme launched by Government of India. The awareness programme was inaugurated by Prof. K. V. Thomas MP, at Kottuvaly on 28th June 2016. Smt. K.K. Shantha, President of Kottuvaly Grama Panchayath presided over. The PMFBY will have the lowest farmer share of premium till date, the rest of the premium burden even if it is more than 90 percentage will be borne by the Government. It has *One season-One premium* rate for food crops, oil seeds and pulses. The earlier provision of different premium rates for different districts and crops has been scrapped. Post harvest



losses due to cyclone and unseasonal rains in the entire country have also been included for the first time in this scheme.

Training programme on Horticultural Mechanization

KVK jointly with Regional centre of ICAR-Central Institute of Agricultural Engineering (CIAE),



Demonstration of Potting mixture preparation during the training on Horticultural mechanization

Coimbatore conducted one day training programme on Horticultural mechanization for women farmers on 29th June, 2016 at CMFRI, Kochi. Operation of potting mixture preparation machine, mechanization package for minimal processing of banana central core, back-pack mounted harvesting tool and garden tiller were demonstrated. An expert team from CIAE comprising of Dr. S. Jacob Annamalai, Principal Scientist & Head, Dr. Ravindra Naik, Principal Scientist and Dr. T. Senthilkumar, Senior Scientist interacted with the trainees. Dr. A. Gopalakrishnan, Director, CMFRI distributed certificates.

Training on Organic Vegetable cultivation in Rainshelters

KVK organized 2 days paid training on “Organic Vegetable cultivation in Rainshelters” at CMFRI on 25th and 26th May, 2016. The training covered rainshelters constructions and organic vegetable farming protocol in rainshelters. Experts from KVK and Kerala Agricultural University took classes during the programme that was attended by 49 participants. Exposure visits to best rainshelter farming units were also conducted.



Trainees and Organizers

Skill development training to fisherwomen

KVK conducted four days Skill development training programme on *production, packaging and marketing of fish products* to selected fisherwomen. The programme sponsored by Society for assistance to fisherwomen (SAF) was held at CMFRI from 23rd to 27th August 2016. The training comprised of raw material selection, production, storage, packing, labeling, trade mark

registration, mandatory licenses, waste utilization, test marketing and promotional activities. Twenty four fisherwomen of Vypeen island participated in the programme. Smt. C.R.Sathyavathy, Executive Director of SAF inaugurated the programme and Smt. Maja Jose P., Assistant Director and Dr. Shinoj Subramannian, Sr. Scientist & Head, KVK participated in the interactive session.



Smt. C.R.Sathyavathy, Executive Director of SAF inaugurating the skill development training

Sales melas

Total of five Sales melas were organized by KVK at CMFRI during the report period. Three seedlings sales melas conducted on 18th - 19th August, 8th September and 5th - 6th October 2016 and two Kadaknath chicks sales melas conducted on 5th April 2016 and on 28th September 2016. Total of 1400 farmers benefited. Good quality

vegetable seedlings, seed propagated curry leaf seedlings, drumstick, papaya, mango, jackfruit, jamba, rambutan, cherry, guava, sapota, sitaphal seedlings, Kadaknath chicks *etc* were distributed to farmers during these melas.



Kadaknath sales mela at CMFRI



Seedlings sales mela at CMFRI

Skill development training on *Safe to eat vegetable production*

KVK conducted skill development training on *Safe to eat vegetable production* to Joint liability groups (JLGs) formed by Poverty alleviation unit, Ernakulam. Total of 228 farmers from Vypeen block panchayath were trained during 31st August and 6th September, 2016. Subsequently field trainings and hands on demonstrations were also launched as part of the programme on 22nd September 2016 at Kuzhupilly. The field training was inaugurated by Vypeen block Panchayat president Dr. K. K. Joshi.



Skill development training inauguration
The project aims to impart skill on safe vegetable production in homesteads.

Open elective course on *Organic farming: Joint initiative of KVK and Amrita School of Arts and Sciences*

An Open elective course for Amrita school of arts and sciences, Kochi on *Organic farming and sustainability* was launched on 1st September, 2016 at CMFRI. The classes are taken by KVK experts. Dr. U. Krishnakumar, Director, Amrita school of arts and sciences was present during launching of the programme. Total of 90 students attended the course that covered 14 hrs. The

course was launched with an objective of creating awareness among youngsters on the importance of organic farming and safe food production and to make them vigilant about the various issues faced due to over usage of chemical fertilizers, pesticides, use of hormones, etc in agriculture and allied fields.



Launching of open elective course at CMFRI

KVK released layer poultry feed for safe egg production

Subsequent to the growing awareness on the safety of vegetables, concerns are also looming large on the reliability of eggs purchased from market. Many of the house wives nowadays produce egg at home by rearing poultry. Most of such home reared poultry are fed with kitchen food waste, whereas layer poultry require certain minerals, salts and vitamins in their feed for producing eggs to its maximum potential and also to maintain size. Those who know this fact supplement the diet with exclusive layer feed available commercially. However purity of such feed also affects the quality of eggs. In this context and as part of its Self farming for safe food programme, the KVK released layer poultry feed in 10 kg packets. Dr.A.Gopalakrishnan,



Dr. A. Gopalakrishnan, Director, CMFRI releasing poultry layer feed

Director, CMFRI released the feed by giving packets to poultry farmers on May 30th, 2016 at CMFRI, Kochi. This feed formulated using feed formulation software of ICAR-Central Avian Research Institute, Bareilly, UP is free from antibiotic and other performance enhancers. It can be purchased from KVK sales counter located at CMFRI, Kochi.

KVK to form two Farmer producer companies

KVK has registered two Farmer Producer Companies viz., Periyar valley spices farmer producer company Ltd (on 17.01.2017) and Pokkali farmer producer company Ltd (on 16.01.2017) with financial assistance of National Bank for Agriculture and Rural Development (NABARD). These companies would be trained and nurtured by KVK for three years as NABARD has recognized KVK as Producer Organization

Promoting Institution (POPI).

Different business plans are being

prepared for both the companies.



Farmer producer company meeting in progress at CMFRI

Video production

- Video on Installation procedure of Irrigateasy drip kit uploaded in KVK website and youtube.

<https://www.youtube.com/watch?v=EJZ4MAlosK0>

Seminar on controlling giant African snail

A seminar was organized by KVK at Government Guest House, Ernakulam on controlling the Giant African snail menace. Prof. K.V. Thomas, Hon'ble Member of Parliament inaugurated the programme held on 11th July 2016. Public representatives from local self governments, Scientists from Central Marine Fisheries Research Institute, Kochi, Kerala University of Fisheries and Ocean Studies, Panangad and Krishi Vigyan Kendra, Idukki attended the seminar. The KVK demonstrated different eco-friendly methods for



Method demonstration for the management of Giant African Snail in the seminar on controlling Giant African Snail

controlling Giant African Snail.

KVK standardized Neera tapping from fishtail palm



Fishtail palm commonly known in Malayalam as Kaalippana/ Choondappana is a wild plant grown in homesteads of Kerala. It's leaves are used as forage for elephants and the palm is also used for tapping toddy. KVK commenced studies on tapping Neera from this palm with the objective of reducing cost of

production and exploring a product with better taste in comparison to the Neera tapped from Coconut palm. The Neera yield per day from fishtail palm is

5-6 times more and number of climbing required per day is only one third and pre-tapping preparations are 10 days lesser when comparing to that required for coconut palm. Higher yield per palm is advantageous for maintaining cold chain and less number of climbing and preparation time reduce cost. Laboratory analysis and organoleptic evaluation conducted by KVK revealed that Neera from fishtail palm is palatable, rich in nutrients and is tastier than coconut Neera. KVK conducted the study with the license from Excise department of Kerala, as tapping sap of fishtail palm comes under excise law of the State.

KVK demonstrates biological management of Aquatic weeds in public ponds

Many of districts fresh water resources particularly ponds are not in a usable condition due to excessive growth of aquatic weeds. There are many chemical weedicides available in the market. However they cause damage to the fish stock and also to the ecosystem. There is an innovative technology by growing certain species of fresh water fish which feed on such weeds. Demonstration of this technology was conducted by KVK at Thripunithura, Perunninakkulam Shiva temple pond. Grass carp fish fingerlings were released during a function

held on 6th December 2016. The programme was inaugurated by Dr. A. Gopalakrishnan, Director, CMFRI. Subsequently, the growth of fish and weed growth were monitored.



Dr. A. Gopalakrishnan, Director, CMFRI releasing grass carp fish fingerlings

KVK commenced satellite production centres for Pearlsport seeds

The KVK has developed a network of seven Pearl spot seed production units in the district with the funding of National Fisheries development board(NFDB). The objective of KVK is to boost local Pearl spot seed production. The produced seeds are pooled and supplied through KVK. Individual farmers are selling directly also. The inauguration was done on 5th January, 2017 by Prof. K.V. Thomas MP while Adv. V.D. Satheeshan MLA, Gopalakrishnan Director, CMFRI, Dr. Sreenath Dixith, Director, Agricultural Technology Application Research Institute, Bangalore were present.



Prof. K.V. Thomas MP handing over pearlspot seeds to a women farmer

Mechanized organic manure production plant set up at KVK

KVK designed and developed a mechanized organic manure production plant consisting of forced air circulated composting unit, fermenter cum solid-liquid separator, pulverizer, lump crusher, trash cutter, liquid mixtures, solid mixing machine, mechanical sieve and bottle filling machine. All kind of composted manures, liquid manures, fermented growth promoters can be manufactured and packed at this unit.



Mechanised organic manure production plant

KVK conducted two skill development trainings under PMKY

KVK conducted two training courses of 200-hour (25 days) duration as part of Pradhan Mantri Kaushal Vikas Yojana (PMKVY), a unique initiative by the Government of India that aims to offer 24 lakh Indian youth meaningful, industry relevant, skill based training. The courses conducted at KVK during 27th February 2017 to 27th March 2017 were *Aquaculture technician* and *Vermicompost Producer*. Thirty nine candidates



Aquaculture technician trainees

participated. The training helped participants to boost their confidence to initiate start-ups in the respective fields. Dr. Shinoj Subramannian, Senior

Scientist & Head was the course coordinator for both the programmes.

KVK launched micro irrigation kit “Irrigateasy” for kitchengardens



Shri. K.J. Maxy MLA, Kochi launching Ernakulam KVK's drip kit-Irrigateasy

Irrigateasy is a micro irrigation kit suitable for irrigating kitchen gardens upto 1 cent area or upto 80 growbags. The unit can be connected to existing plumbing line or to a separate water storage tank. The basic concept behind introducing this kit is to make the kitchen gardening easy. The kit is available at the counter for Rs.450/-. The launching was done by Shri. K.J. Maxy MLA at Palluruthy on 5th December 2016.

KVK's Satellite Production Centers (SPCs) turned livelihood for partner farmers

The SPCs were originally commenced for tackling the accessibility constraint at KVK by outsourcing KVK products manufacturing. All these SPCs are functioning well with technical support, quality control and buy back arrangement of KVK and

became sources of livelihood for the partner farmers and self help groups. A list of SPCs, production and average monthly income are as follows:

SI No	Name & Address	Total production	Monthly income (Rs)
1	SPC- Pearlsport seeds C/o Hari P. S., PallathuVeedu, Vavakkad, Moothakunnam, North Paravur.	12,500 Nos.	10,000/-
2	SPC- Pearlsport seeds C/o Vinod Kumar &Unni T. R. Devasom Parambil, Pizhala, Kadamakudy	13,500 Nos.	13,000/-
3	SPC-Pearlsport seeds C/o Dharmajan KavalkaranVeedu, Elakunnapuzha	14,000 Nos.	11,000/-
4	SPC- Pearlsport seeds C/o Shibu CV Cocheril, Kumbalangi	20,000 Nos.	15,000/-
5	SPC-Fresh water fish seeds C/o Joseph T.K Thakidiyil, Kothamangalam	55,000 Nos.	3,000/-

6	SPC-Vegetable seedlings Brothers of St Joseph Cottolengo, Cottolengo Road, Palluruthy	94,000 Nos.	8,000/-
7	SPC-Micronutrient mix Janani activity group, Rubber board buiding, Edakkattuvayal.	3.9 MT	2,500/-
8	SPC-Soil less media Vypeen HarithaShree SHG Edakkattuvayal	12.0 MT	12,000/-
9	SPC-Desi cow products C/O C. T. Dinoj Cheruvallypadi (H) Paniyeli, Vengoor P.O., Ernakulam Dist.	3.5 MT	5,000/-
10	SPC-Fish manure C/o Saiju, Putrhanthara, Mulavukad.	5.0 MT	5,000/-
11	SPC Poultry chicks	3,900 Nos.	15,000/-



Satellite micronutrient production unit



Satellite seedling production unit

KVK launched Aqua Task force

KVK launched an Aqua task force comprising of youth trained to assist fish farmers at various stages of farming viz., pond cleaning, seed sourcing, feed supply, cage fabrication, cage maintenance, harvesting, marketing etc. The Aqua task force is also capable of making project reports with KVK's technical backstopping and complete formalities for getting bank loans for fish farmers. The task force would be working under the technical guidance of KVK experts. The first task force of KVK named Kadamakudy malsya krishi karma sena was launched by Dr. A Gopalakrishnan, Director, CMFRI in presence of Smt. Shalini Babu, President, Kadamakkudy

grama panchayath on 21st November 2016 at Pizhala, Kochi. This venture is part of KVK's policy to set up task forces across the district to assist farmers.



Launching of Aqua task force - Dr. A. Gopalakrishnan, Director CMFRI handing over certificate to the group

Pre-Rabi campaign conducted

A Pre-Rabi awareness campaign was conducted in association with Ernakulam Agri-Horti society during 2nd to 10th January, 2017 at Ernakulathappan ground, Ernakulam. Recent technologies relevant in Agriculture and allied sector for Ernakulam district were popularized through posters, booklets and display of KVK products. Approximately 35,00 farmers and 250 extension personnel visited KVK stall.

KVK celebrated World soil day

The World soil day celebration of KVK was held at Palluruthy, Ernakulam on 5th December 2016. Member of Kerala Legislative Assembly from Kochi, Shri K.J. Maxy inaugurated the programme. Smt. Hema Prahladan, Councillor, Kochi Corporation presided over. Dr. Shinoj Subramannian, Senior Scientist & Head of KVK, Dr. R. Narayanakumar, Principal Scientist & Head of SEETD division of CMFRI were present. During the occasion, Yearly calendar for Nutmeg farming was released. A seminar on soil test based fertilizer application followed.

KVK celebrated World fisheries day

KVK celebrated World fisheries day on 21st November, 2016 at Pizhala Island, Ernakulam.



World fisheries day message by Dr. A. Gopalakrishnan, Director, CMFRI

A seminar on fish farming and cage aquaculture was conducted. Hand book on *FAQs on cage farming* and leaflet on *GIFT Tilapia farming* were released. Dr. A Gopalakrishnan, Director, CMFRI delivered the world fisheries day speech and Smt. Shalini Babu, President, Kadamakkudy grama panchayath presided over. Dr. Shinoj Subramannian, Sr. Scientist and Head, KVK, Dr. P.A. Vikas Subject Matter Specialist-Fisheries were present.

KVK's Fishlizer showcased in National exhibition

Fishlizer, the organic manure from fish waste, manufactured and supplied by KVK Ernakulam as part of its Swachch Bharath programme was showcased in a National level exhibition held at KVK Gurgaon on 27th October 2016. Shri. Sudershan Bhagat, Union minister of states, Ministry of Agriculture and Farmer's Welfare, Shri. Chhabilendu Raul IAS, Additional Secretary, DARE, Shri. S. K. Singh, Financial Advisor- ICAR, Dr. J.S.Sandhu, DDG(Crop sciences), Dr. R. Kaur, Director, IARI, Dr.Pravin putra, ADG (Marine fisheries) and Dr.S.P.Kimothi, ADG(C) visited the stall. Approximately 350 farmers also participated.



Union Agriculture minister of state Shri. Sudarshan Bhagath watching swachh bharath symbol in Fishlizer packet

Scientific Advisory Committee meeting held on 6th January, 2017

The Scientific Advisory Committee (SAC) meeting of KVK was held at CMFRI on 6th January, 2017. Dr.A Goapalkrishnan, Director CMFRI presided over. Review of the work done by KVK

was conducted by Dr. Sreenath Dixith, Director, ATARI, Dr.Estelitta, Director of extension, Kerala Agriculture University, farmers, line department representatives and SAC members were present.

ATMA - KVK Linkage

1. Monthly Technology Advisory (MTA) meetings

KVK attended 7 ATMA Monthly Technology Advisory (MTA) meetings during the report period and provided technical support in formulating Monthly technology advisories.

2. Exposure visit of Farmers from Thanjavur

KVK hosted exposure visit of 40 farmers from Tanjore district of Tamilnadu on 7th July 2016 as part of their ATMA - Interstate exposure visit. Activities of KVK Ernakulam were briefed and KVK products demonstrated.

3. KVK participated in ATMA technology meet

KVK participated in the ATMA technology meet conducted at Kuruppampady during 19th to 21st November 2016. Various technologies and products popularized by KVK were displayed. The KVK trained SHG Jeeva Kudumbashree Micro Enterprise marketed their organic products at the *entrepreneurs corner* in the KVK stall. Shri Shoji Joy Edison, Subject Matter Specialist- Horticulture moderated session on *Success stories of progressive farmers of Ernakulam*. Approximately 1000 farmers visited the stall.

Participation in Exhibitions

1. Jilla Sahakarna Mela organized by District Cooperative Bank

KVK participated in the Jilla Sahakarna Mela organized by District Cooperative bank on September 7th and 8th, 2016 at District Cooperative bank, Kakkanaad. KVK products were displayed and demon-strated to farmers. M/s Jeeva Kudumbashree Microenterprises; the organic manure manufacturers formed and nurtured by KVK displayed their products.

2. Seminar and exhibition at CPCRI, RS Kayamkulam

KVK participated in the exhibition and seminar organized as part of Centenary celebrations of CPCRI and Coconut farmers meet at CPCRI, RS Kayamkulam from 29th - 30th September 2016.



KVK's exhibition stall at CPCRI, Kayamkulam

KVK products and technologies were showcased. The programme was inaugurated by Shri.

Radha Mohan Singh, Hon'ble Union Minister for Agriculture.

KVK conducted Farmer's Field School

KVK conducted Farmers field school on Scientific fodder farming and marketing at Piravom during August 2016 to April 2017 with the objective of creating awareness on commercial fodder cultivation and enhance production. News was circulated in newspapers during August 2016 for selecting interested farmers. Subsequently training

was conducted on 26th October 2016 wherein a farmer-farmer interface was also arranged.

The varieties CO3 and CO 5 were selected for demonstration in 1.5 acre land. The slips were further used for propagating in 5 acres land in Thodupuzha and marketing was done at this field.

Programme participation

- Dr.Shinoj Subramannian and F. Pushparaj Anjelo participated in Annual Review meeting of ICAR-KVKs of Zone VIII held at KVK-Wynadu, Ambalavayal during 20th and 21st April 2016.
- Shoji Joy Edison attended review meeting of Kerala State Planning Board funded project *Enhancing the productivity of coconut based land use systems for land use planning in Kerala state* held at ICAR-NBSS, Bengaluru during 21st and 22nd April 2016.
- Dr. P.A. Vikas, attended *Aquafarmers Capacity building training programme proposal presentation meeting* organized by NFDB on 25th May 2016 at ICAR-ATARI, Bengaluru.
- P. Sreeletha, F. Pushparaj Anjelo, Shoji Joy Edison, N.V. Dipti and Dr. P.A. Vikas participated Agri Intex 2016 Agricultural fair on 18th July 2016 at CODISSIA Complex, Coimbatore.
- F. Pushparaj Anjelo attended review meeting on *status of FPO's* conducted by NABARD on 27th July 2016 at NABARD, Regional office Thiruvananthapuram.
- Dr.Shinoj Subramannian attended 1 day interface with BPD unit, IISR, Kozhikkode on *IISR technologies for popularization among farmers* on 26th August 2016.
- Dr.Shinoj Subramannian attended Seminar cum exhibition at CPCRI regional station, Kayamkulam on 28th September 2016.
- Shoji Joy Edison attended review meeting of Kerala state planning board funded project *Enhancing the productivity of coconut based land use systems for land use planning in Kerala state* on 14th October 2016 at CPCRI RS, Kayamkulam.
- Dr.P.A Vikas and F Pushparaj Anjelo attended Orientation of KVK Trainers on Skill Development Programme at Bengaluru during 26-28 October 2016.
- P. Sreeletha attended technical committee meeting of VAIGA international workshop on value addition and agro processing held on 31st October 2016
- Dr. P.A. Vikas delivered a lecture on *KVK-a Vibrant system of Technology Transfer* to the participants of *International training programme on "Extension Methodologies for coastal fisheries* held at ICAR-

Programme participation Contd

- CIFT, Kochi on 23rd November 2016 as part of - 15-26.
- F. Pushparaj Anjelo attended National workshop on skill development on 5th January 2017 at ICAR-NASC complex, New Delhi.
 - P. Sreeletha attended Harithakeralam planning meeting convened by District collector on 24th January 2017 at Ernakulam Collectorate.
 - P. Sreeletha attended Harithakeralam implementation committee meeting at RTTC, Thiruvananthapuram on 30th January to 1st February 2017
 - Dr. P.A Vikas attended National Seminar on *Good Aquaculture Practices (GAP) in the wetlands of Kerala* on 2nd February 2017 at St Alberts College, Ernakulam.
 - Dr. Shinoj Subramannian P Sreeletha, F. Pushparaj Anjelo, Shoji Joy Edison and Dr. P.A Vikas attended the Pre-action Plan meeting of Kerala KVKs held at KVK Thiruvananthapuram from 9th February, 2017.
 - Dr. Vikas P A and Shoji Joy Edison attended Scientist-farmer Interface programme organized by ATMA Ernakulam on 21st February 2017 at Edavanakkad North.
 - Shoji Joy Edison attended 7 Monthly Technology Advisory meetings held at collectorate, Kakkanad during the year 2016-17.

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Radio Programmes

- Dr.A.Gopalakrishnan, Director CMFRI, Dr.Shinoj Subramannian, Sr.Scientist and Head KVK and K. Smita Sivadasan Subject Matter Specialist (Animal Husbandry) participated in a radio programme on *Karinkozhi Vipana Mela* in AIR, Kochi 102.3 FM broadcasted on 6th April, 2016.
- Dr.P.A. Vikas, Subject Matter Specialist (Fisheries) delivered a talk on "GIFT Thilapia farming prospects" in AIR, Kochi 102.3 FM on 27th May 2016.
- Dr.Shinoj Subramannian, Sr.Scientist and Head and Shri. Shoji Joy Edison, Subject Matter Specialist (Horticulture) delivered a talk on "*Rainshelter cultivation and coverage of rainshelter training conducted by KVK*" broadcasted in AIR, Kochi 102.3 FM on 10th June, 2016.
- Documentary on *Organic agricultural products of KVK Ernakulam part 1* telecasted by Malayala Manorama Malayalam television channel on 22nd November 2016.
- Documentary on *Organic agricultural products of KVK Ernakulam part 1I* telecasted by Malayala Manorama Malayalam television channel on 29th November 2016.
- Startups in Aquaculture. Money news. Mathrubhoomi News television channel, 2nd April 2017

Sales Counter

Sales counter located in the ground floor of ICAR-CMFRI building by the side of Goshree road near High court junction in Kochi supply various products useful for organic/safe farming. The facility is open for public on all working days from 10:00 am to 4:00 pm.

PRICE LIST

No	Item	Quantity	Price at Sales Counter (Rs)*
1	Amino plus	200 ml	40
2	Organo excel	1 kg	70
3	Panchagavya	200 ml	45
4	Neem de pest	250 g	60
5	Neem oil	200 ml 20 kg (Bulk)	105 6800 + tax
6	Neem Cake	1 kg	50
7	Tobacco decoction kit	1 No	42
8	Fruit fly trap	1 No	30
9	Pheromone trap (Vegetables)	1 No	145
10	Pheromone trap (Mango)	1 No	145
11	Vegetable Top Up	500 g	75
12	Banana Top Up	500 g	75
13	Fishliser	500 g	40
14	Vermicompost	1 kg	25
15	Enriched cowdung	1 kg	35
16	Desi Gomutra	1 litre	40
17	Nanma	500 ml	150
18	Menma	200 ml	75
19	Shreya	200 ml	55
20	Shakti	200 ml	65
21	Nutrislurry	5 litre	150
22	Vegetable seeds		10/- to 25/-
23	Fodder seeds-Hedge Lucerne	50 g	50
24	Fodder seeds-Subabul	20 g	20
25	Fodder seeds-Agathi	20 g	20
26	Fodder seeds-Stylo	50 g	40

27	Fodder cowpea	100 g	35
28	Fodder maize	100 g	25
29	Pearl plus feed PS 1 to 4	1 kg	95
30	Pearl plus feed PS 5	1 kg	85
31	Poultry Layer Mash	10 kg	400

*Competent authority may change price from time to time.

KVK's Priced Publications

Sl. No.	Name of Publication	Price (in Rs.)
1	100 days schedule for vegetable cultivation in grow bags (User's Manual)	10
2	Jaiva Pachakkari Krishikkoru Kaipusthakam	30
3	Ernakulam KVK yude Jaiva Karshika Ulpadana Upadhikal	10
4	Nadan Vittinangalude Registrashanum Karshakarude Anubandha Avkashangalum	5
5	Jaadi krishiyude vaarshika calender	5
6	GIFT Tilapia krishi	5
7	Koodu malsyakrishi (FAQs)	15

Career Advancement



Shri. F. Pushparaj Anjelo, Senior Technical Officer-SMS (Agricultural Extension) promoted to Assistant Chief Technical Officer-SMS (Agricultural Extension), w.e.f 21st January 2015.



Shri. Shoji Joy Edison, Senior Technical Officer-SMS (Horticulture) promoted to Assistant Chief Technical officer-SMS (Horticulture) w.e.f 21st January 2015.



Dr. Karikkathil Smita Sivadasan, Senior Technical Officer-SMS (Animal husbandry) promoted to Assistant Chief Technical officer-SMS (Animal husbandry) w.e.f 03rd February 2015.

ICAR-CMFRI News

ICAR-CMFRI identifies new species of mackerel, names as *Scomber indicus*

The Central Marine Fisheries Research Institute (CMFRI) has identified a new species of mackerel in Kerala waters. The black-spotted new fish has been named as Indian chub mackerel, *Scomber indicus*. The new species is distinctly different from



the other members of the mackerel family both taxonomically and genetically. In local parlance, the fish is known as pulliayala or pullithiryan. The meat is soft and tastes similar to Indian mackerel. The species would become a potential resource to form a commercial fishery. While a catch of 10 tonnes of the Indian chub mackerel was recorded in the State in 2015, around 25 tonnes of this species was caught from Kerala coasts this year itself indicating the growth of the fish in the State.

ICAR-CMFRI succeeds in seed production of orange spotted grouper

In a major breakthrough in the mariculture business in the country, the Central Marine Fisheries Research Institute (CMFRI) has succeeded in the large scale seed production of orange spotted grouper (*Epinephelus coioides*), a highly demanded fish species in the market. The achievement is the first of its kind in India. The hatchery seed production of the species, carried by the Vishakapatnam Regional Centre of CMFRI, is expected to boost the sea cage culture enterprises in the country. The orange spotted grouper is



a commercially important carnivorous fish with high market demand in many parts of the world. Orange spotted grouper is compatible to high temperature and has hardy nature.

ICAR-CMFRI launches Nodadetect- the fish virus diagnostic kit

Nodadetect is a diagnostic kit for the detection of betanoda virus in infected marine fishes like cobia and sea bass. Dr. Trilochan Mohapatra, Secretary (DARE) and Director General, Indian Council of Agricultural Research (ICAR) released the kit on 18th April 2016. Betanoda virus causes Viral

Nervous Necrosis (VNN) also known as Viral Encephalopathy and Retinopathy (VER) in larvae and juveniles of marine fin fish, resulting in mass mortalities. No effective treatments are available and those fish surviving the infection remain carriers of the virus, causing vertical and horizontal transmission.



Dr. Trilochan Mohapatra, Secretary (DARE) and Director General, ICAR releasing betanoda detect Kit

ICAR-CMFRI signs MoU for commercial production of Anti-diabetic nutraceutical



Dr. A. Gopalakrishnan, Director, CMFRI signing MoU with Celestial Biolabs Ltd., Hyderabad

Dr. A. Gopalakrishnan, Director, ICAR-CMFRI and Dr. A. N. Singh, Managing Director, Celestial Biolabs Ltd., Hyderabad signed a Memorandum of Understanding (MoU) on 25th April 2016 for commercial production and marketing of Cadalmin™ ADe, an anti-diabetic nutraceutical, at a function held at ICAR-CMFRI in Kochi. Cadalmin™ ADe is effective to combat type-2 diabetes and has no side effects including hypoglycemia (abnormal lowering of blood glucose levels). The bioactive

ingredients in the nutraceutical product interfere with the release of simple sugars from the gut, which in turn reduces postprandial (after eating) hyperglycemia (high blood sugar levels). Cadalmin™ ADe contains 100% natural marine bioactive ingredients from selected seaweeds by a patented technology, and would be made available in 500 mg capsules by Celestial Biolabs Limited, a GMP/ WHO certified Biopharmaceutical Company based at Hyderabad.

CITY
THE HINDU • MONDAY, APRIL 4, 2016

Bringing safe food back to homesteads

TOWARDS SELF-FARMING: The eggs and the dark-in-colour meat of Kadaknath fowls are believed to have medicinal properties.

SPECIAL CORRESPONDENT

Kochi: The Indian Council of Agricultural Research-Krishi Vigyan Kendra Ernakulam, attached to the Central Marine Fisheries Research Institute, will organise a sales mela for Kadaknath fowls ('Karin-kozhi') on April 5 at the sales counter attached to the CMFRI near the High Court of Kerala.

"The fair is being organised as part of KVK's campaign to promote 'self-farming for safe food.' The KVK's efforts are aimed at popularising the rearing of the indigenous variety in homesteads

The day-old chicks brought from the Central Poultry Development Organisation (CPDO), Mumbai, were reared for two months under scientific management protocol and with all vaccinations complete. These birds will be available for purchase on Tuesday.

The CPDO is engaged in popularising poultry farming across the country. Kadaknath fowls are native to Jabhruva district of Madhya Pradesh. The eggs and the dark-in-colour meat from the fowls are believed to have medicinal properties.

Trials by the local Krishi Vigyan Kendra had earlier shown that Kadaknath fowls

TIMES CITY
THE TIMES OF INDIA, KOCHI | WEDNESDAY, JULY 13, 2016

Kochiites take to rain shelters for crop protection

Sudha.Nambudiri
@timesgroup.com

NEW OPTION

A 30 sq m rain shelter (nearly 1 cent) costs ₹50,000

Each year horticulture mission provides a substantial subsidy

No extra expense that polyhouses incur

FOR A MINI CROP

Plant this week and reap a good harvest for your family by

Onam

Chilies, brinjals, bitter melon, lady's finger

Kochi: Cultivators are making a beeline for rain shelters to protect their rooftop and backyard vegetable gardens till Onam. Shoji Edison, horticulture expert at Krishi Vigyan Kendra (KVK) in Kochi said that there are nearly 200 rain shelters in and around the city including Edappally, Vyttila and Fort Kochi. The factors favouring this structure is that it works in all seasons, is cheaper than polyhouses and citizens also get a subsidy.

"Unlike polyhouses, which require a lot of investment and attention, rain shelters are cost-effective and ideal for non-commercial ventures. Of course, you will still have some vegetables for the market," he said. With the agriculture department providing free seedlings, horticulture experts said that just one cent is enough for a family to reap seasonal crops. A 30 sq m structure costing Rs 50,000 would be ideal for one family. Rain shelters are structures that shelter crops from torrential rain while ensuring enough sunlight through its UV stabilised roof. There are no side covers but insect-proof nets that ensure ample aeration. In either case, the humidity and temperature inside the rain shelter will mirror the outside environment.

Rain shelters can be constructed on ground or terrace. If constructed on ground, planting can also be done in grow bags. "There are houses where people have covered the entire terrace with rain shelter. These won't be any wall seepage," said Shaji Mohan, a farmer who specialises in rain shelter construction.

KVK's programme coordinator Shinoj Subramanian said construction of temporary roofing using metallic sheets, is a common practice in Kerala to overcome heat in summer and leakage during monsoon. "Minor modifications to this structure can form a rain shelter on your terraces. UV stabilised polythene sheet replaces the metallic roofing sheets and the heavy frame to support metallic roofs can be made lighter. This cost-effective structure constructed over the terrace can reduce heat inside the house during summer and curb leakage during monsoon while protecting a crop," he said.

KVK officials said that this structure is not for commercial vegetable production. "If you give importance to quality and safety, rain shelter is a better choice for round-the-year veggie production in Kerala," said Shinoj.

THE TIMES OF INDIA, KOCHI
TUESDAY, JUNE 28, 2016

Programme on agricultural insurance:

An awareness programme on agricultural insurance will be held at Valluvaly Service Cooperative Bank, Kochaal, at 11am on Tuesday under the Pradhan Mantri Fasal Bima Yojana. MP K V Thomas will inaugurate the event.

SPECIAL CORRESPONDENT

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DECCAN CHRONICLE
FRIDAY | 20 JUNE 2016 | KOCHI

Inventory of fruit bearing plants

Kochi: As part of its programmes to promote safe vegetable production, the Krishi Vigyan Kendra Ernakulam is preparing a district inventory of those who own excellent bearing trees of various fruit crops. The planting materials bought from such plants would be effectively used for further propagation and distribution. Formation of a district level forum of fruit growers and their group activities are also proposed. Those who own bearing fruit trees of any kind (with good fruit quality) and willing to share the propagation material may kindly contact KVK on 8281757450. Similar to the concerns on use of pesticide sprayed vegetables, consumption of fruits imported from other states and countries is a matter of concern. As the state climate and soil are well suited to grow wide variety of fruits including tropical exotic fruits, it is wise to cultivate at least one fruit tree per homestead, remark the

DECCAN CHRONICLE
THURSDAY | 2 JUNE 2016 | KOCHI

Now, poultry feed from Krishi Kendra

DC CORRESPONDENT
KOCHI, JUNE 1

The Krishi Vigyan Kendra, Ernakulam, has launched an organic layer poultry feed for quality egg production. The feed, free of antibiotics and other performance enhancer, has been developed by using the feed formulation software of Central Avian Research Institute, Bareilly UP.

Dr. A. Gopalakrishnan, director of Central Marine Fisheries Research Institute, launched the feed by handing over the packets to poultry farmers in Kochi on Tuesday.

"The feed has been developed for the domestic homestead use and not for big commercial poultry farms. Most home-reared poultry are fed with kitchen food waste, whereas layer poultry require certain minerals, salts and vitamins in their feed for producing eggs to their maximum potential and also to maintain size," said Shinoj Subramanian, senior scientist at KVK.

"The people are concerned about the presence of antibiotics and other toxic elements in eggs coming from neighbouring states. Unlike vegetables, eggs have no organic alternative and we have to rear poultry at home to have safe eggs. The initiative is part of KVK's programme called 'Self farming for safe food,'" he added.

"The feed is available for

THE HINDU • MONDAY, JUNE 20, 2016

A fruit tree in each homestead

SPECIAL CORRESPONDENT

Kochi: In line with its support activities for promotion of safe-to-eat vegetable production, the Krishi Vigyan Kendra (KVK), Ernakulam, of the Central Marine Fisheries Research Institute has initiated activities to ensure self-reliance in the production of fruits in homesteads.

Safe food campaign

The self-farming for safe food campaign intends to make available good quality planting materials of various fruit crops suitable for the agro-ecological zone, says a statement issued by the KVK here.

Keeping this in view, the KVK is preparing a district-level inventory of those who own excellent bearing trees of various fruit crops. The planting materials will then be effectively used for further propagation and distribution.

Forum of farmers

Formation of a district-level forum of fruit growers and subsequent group activities are also being planned. Those who own bearing trees with good fruit quality and are willing to share the propagation material may contact the KVK over phone (8281757450).

With the Kerala climate and soil well suited to grow a wide variety of fruits, the KVK says at least one fruit tree can be grown in each

THE TIMES OF INDIA, KOCHI
WEDNESDAY, JUNE 29, 2016

Seminar on African snails:

A seminar on tackling proliferation of African snails in Ernakulam will be conducted on July 11 at Ernakulam Guest House Hall. It will be jointly organized by Central Marine Fisheries Research Institute

DECCAN CHRONICLE
MONDAY | 23 MAY 2016 | KOCHI

2-day training on organic farming in rain shelters

Kochi: Monsoon is not ideal for vegetable farming. To promote vegetable farming during monsoon, the Krishi Vigyan Kendra Ernakulam has proposed using rain shelters, the structures that prevent rain drops falling directly on plants while ensuring enough sunlight through its UV stabilised roof. KVK is organising two-day training on organic vegetable farming in rain shelters on May 25-26 at Central Marine Fisheries Research Institute. The training would cover construction and farming protocol in rain shelters. Experts from KVK and Kerala Agricultural University would take classes. Exposure visits to best rain shelter farming units

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"The people are concerned about the presence of antibiotics and other toxic elements in eggs coming from neighbouring states. Unlike vegetables, eggs have no organic alternative and we have to rear poultry at home to have safe eggs. The initiative is part of KVK's programme called 'Self farming for safe food,'" he added.

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THE NEW INDIAN EXPRESS
WEDNESDAY 07.09.2016

KVK to distribute curry leaf saplings

Kochi: The ICAR-Krishi Vigyan Kendra (KVK) will organise a one-day fair on Thursday to distribute curry leaf saplings to households interested in growing curry leaf plants at home. The demand for curry leaf saplings has been increasing in the wake of recent reports of high pesticide residues in the curry leaves available in market. However, unavailability of good-quality saplings has been a major issue. As part of the fair, to be held on the CMFRI campus at Goshree Road near High Court Junction, a programme will be organised to create awareness among the public on the methods to cultivate curry leaf plants effectively. Soil acidity correction kits (dolomite) and leaflets with details of curry leaf growing will be distributed on the occasion. The kit is meant for neutralising soil acidity. The seedlings will be priced at

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K.V Thomas, MP, to inaugurate an awareness class on crop insurance plan under the Pradhan Mantri Fasal Bima Yojana at Valluvaly near Paravur on Tuesday

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भाकृ अनुष
ICAR

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सी एम एफ आर आइ
CMFRI