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 किसानों का उत्थान
 कृषि में अग्रणी संस्था

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ICAR - KVKERNAKULAM

Newsletter

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Buyer seller meet for farmers



ICAR-KRISHI VIGYAN KENDRA (ERNAKULAM)

ICAR-Central Marine Fisheries Research Institute
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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. The specific activities 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 farmer's 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 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-KVK (Ernakulam) of ICAR-Central marine fisheries research institute (CMFRI) is a knowledge and resource centre of agriculture and allied sectors for Ernakulam district. In addition to accomplishing major mandate of technology assessment, refinement and demonstration, this KVK is also taking up supply of quality farming inputs through its sales counter and facilitate marketing of local farmer's produce through its Farm shoppe. Realizing the importance of marketing assistance to farmers, the KVK has organized a buyer-seller meet at CMFRI, Kochi to create business linkages for farmer producer organizations across Kerala, Tamilnadu and Karnataka. KVK has also intervened in popularizing Genetically improved farmed Tialpia (GIFT) fish among consumers by conducting a Tilapia food fest at CMFRI. The KVK has been instrumental in organizing finance to farmers by preparing project reports to avail bank loans. A KVK-Bank of India loan window was organized at CMFRI to facilitate financing to agricultural projects in the district. The Farm service centre launched by KVK offers various on farm services to farmers including machinery rental service. The KVK established a model homestead egg production-supply chain by setting up poultry units in Narakkal grama panchayath with egg buy-back arrangement to KVK Farm shoppe. The KVK is also instrumental in creating awareness among students on farming by conducting exposure visits, Rural work experience programmes and also distributing saplings in schools. Satellite production centres are KVK's units established in farmer's fields to produce quality seeds and planting materials while generating income to partner farmers. This newsletter provides glimpses of various programmes undertaken by Ernakulam KVK in order to disseminate the information collected with a view to invite fruitful future collaborations from peer institutions, line departments, research organizations and most importantly, the farmers to work together in coming years for betterment of farming sector and ensuring safe food for all of us.

A. Gopalakrishnan
Director

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The background features a watercolor wash in shades of pink, red, and teal. Overlaid on this are delicate line-art illustrations of flowers and leaves in matching colors. A horizontal line is positioned above the text.

WITH BEST COMPLIMENTS FROM...

Dr. A. Gopalakrishnan
Director
ICAR- CMFRI

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

HOMESTEAD EGG PRODUCTION-SUPPLY CHAIN DEMONSTRATED

KVK has demonstrated a model homestead egg production-supply chain by setting up poultry units in selected homesteads of Narakal grama panchayath and eggs supplied in branded



The branded eggs for sale at KVK's farm shoppe

KVK LAUNCHED FARM SERVICE CENTRE

The KVK launched Farm service centre (FSC) to offer various services to farmers viz. agro machinery rental, fabrication and supply of farm structures including poultry shelters, fish cages, hydroponic fodder chambers, rain shelters etc. The FSC was inaugurated by Dr. A Gopalakrishnan, Director, CMFRI on 3rd June, 2019. The centre is equipped with a fabrication unit and machinery such as tractors, power tiller, power weeder, different types of ploughs, rotavators, earth augers, motorized and hand operated sprayers, paddy transplanter, agro waste shredder, slurry pump, water pump etc.



Dr. A. Gopalakrishnan, Director, CMFRI inaugurating Farm service centre.

packets through Farm shoppe of KVK. This model created avenues for income to the house wives while supplying quality and safe eggs to consumers. The poultry units consisting of improved cages, layer poultry birds and feed were distributed in a programme inaugurated by Dr. A. Gopalakrishnan, Director, CMFRI, Kochi on 29th May 2019. Funding was provided by ICAR-Central plantation crops research institute, Kasaragod under its Scheduled caste sub plan (SCSP). The 45 units distributed are expected to produce one lakh eggs per year.



Dr. A. Gopalakrishnan, Director, CMFRI handing over poultry units

KVK CONDUCTED TILAPIA FOOD FEST



KVK conducted a Tilapia food fest during 14-16 November 2019 at CMFRI, Kochi to popularize the fish among consumers. Though Tilapia is a nutritionally rich and tasty fish extensively farmed in Kerala, the consumer acceptability is low due to lack of awareness. The food fest was organized to popularize the fish among consumers. Tilapia dish worth 1.0 lakh could be supplied during the fest. The KVK had earlier demonstrated production potential of 3000 kg/ha for Genetically improved farmed Tilapia (GIFT). Tilapia food fest progressing at CMFRI, Kochi



AGRO BUYER-SELLER MEET

The KVK in association with ICAR-Central Marine Fisheries Research Institute, Swadeshi science movement and National bank for agriculture and

rural development (NABARD) has conducted Agro buyer-seller meet during 14-16 November 2019 at CMFRI, Kochi. Objective of the meet was to create business linkages to farmer producer organizations. Linkages for business worth 75.0 lakhs could be created.



Excerpts from Agro buyer-seller meet

SINGLE WINDOW FINANCE FOR FARMERS

The KVK in collaboration with Bank of India organized a Single window finance facility for farmers at CMFRI, Kochi during 14-16 November 2019. Earlier on 6th November 2019, an awareness programme on credit facility was also organized.



Awareness programme on agricultural credit



Single window finance facility for farmers

AGRIPRENEURSHIP MODELS



Smt. Raji George, Peechanikkad, Karukutty

Smt. Raji George, Peechanikkad, Karukutty, Ernakulam who has undergone the Agricultural skill council of India certified Aquaculture technician course of the KVK commenced cage fish farming in a granite quarry at Karukutty near Angamaly. The technology backstopping was provided by KVK throughout the farming and a sales mela organized at farm gate to market the fish. She earned INR 2.0 Lakhs from 0.5 ha granite quarry over a period of 12 months.

The Malsykrishi self help group members from Ezhikkara, Ernakulam have undergone a series of training programmes on cage fish farming and commenced farming in 22 cages at Veerampuzha during 2019- 20. The KVK constantly extended technology backstopping while M/s Palliakkal service cooperative bank financed the project. KVK also provided technical support to organize a sales mela at farm gate to market the fish. The groups generated income of 22 lakhs in eight months



Malsykrishi SHG, Ezhikkara attending training



Branded fish from fisherman Shri. Joseph Mangayil

Shri. Joseph mangayil Cheryakadavu, Kannamali, Ernakulam is a fisherman who was trained by KVK on Minimal fish processing during May 2019. He has subsequently registered a firm Theeram fresh under the guidance of KVK and got registration of Food safety and standards authority of India (FSSAI) in June 2019. He commenced supply of ready-to-cook fish directly to the consumers avoiding middlemen. The KVK designed a packing and further made a buy-back arrangement to supply fish through KVK's Farm Shoppe.

Smt. Geetha Sukumaran, Pulikkal, Narakkal is a traditional papad manufacturer who has been doing the business since 2008. The KVK created an awareness programme on safe-to eat papad making subsequent to media reports on health hazards due to adulteration in papads. The KVK also made a supply chain for the major ingredients black gram from M/s Viruthai millets, Viruthunagar, Tamilnadu and Coconut oil from Karumaloor farmers. Further the KVK made a buy-back arrangement to supply safe-to-eat papads through Farm Shoppe. Smt. Geetha Sukumaran is now known in the area for quality papads.



Smt. Geetha Sukumaran, packing her papads

Smt. Geetha Sukumaran, packing her papads

KVK IN SERVICE OF FARMERS

Farm service centre

Total of 998 hours of farm machinery rental services were provided to farmers during the year 2019-20 and income of INR 3.28 lakhs generated. The Farm service centre also fabricated and supplied 12 poultry shelters, 2 hydroponic fodder chambers and 5 azolla units.



The KVK machinery in operation at a farmer's field

Farm shoppe

KVK marketed farmers products 400 kg pulses, 800 kg rice, 143 kg rice products, 725 kg edible oils, 1278 kg cut vegetables, 125 kg spices, 760 kg dairy products, 840 kg jaggery, 270 kg potato, 8300 poultry eggs, 15 kg dry fish and 775kg live fish worth Rs. 11.30 lakhs during the year 2019-20.

Recently added products

Ground nut oil and Gingelly oil produced by M/s Sanarpati comate farmer producer company limited, Dindigul, Tamilnadu, Green gram, Green gram dhal, Black gram dhal and Sambar dhal produced by M/s Viruthai millet farmer producer company, Virudhanagar, Tamilnadu, dried Garcinia produced by M/s Surya Kudumbashree, Kizhakkambalam, Ernakulam, Milk supplied by M/s Blavath agro products society, Panambukad, Ernakulam, Kadaknath poultry eggs supplied by farmer Smt.Sulfath moideen, Edavanakkad, Ernakulam, authentic desi poultry eggs supplied by farmer Smt. Radha Ramanan, Vallarpadam, Ernakulam, quail eggs supplied by farmer Smt. Raziya Hassan, Veliyathunadu, Ernakulam and duck eggs supplied by farmer Shri. Rameshan P.S., Nayarambalam, Ernakulam are the farmer's products recently added for supply through farm shoppe.



Farm store

The KVK supplied 21 kg vegetable seeds, 10250 vegetable seedlings, 1232 fruit grafts, 3049 curry leaf saplings, 702 bush pepper saplings, 2292 kg organic manures, 775 litre organic pest repellents, 515 litres growth enhancers, 27 litres fish probiotics, 404 kg fish feed, 28 MT soil less planting media, 49455 fish fingerlings, 2562 poultry chicks, 460 kg micronutrients, 240 drip irrigation kits, 1465 kg biocontrol agents, 258 fruit fly traps and 105 publications during the year 2019-20.

New products launched

KVK commenced supply of durable poultry shelters that can accommodate upto 10 birds. The shelter equipped with nest box and automatic drinker is made of 16 & 14 guage GI tubes, 12 gauge GI wire mesh and GI roofing.



Poultry Cage



Azolla units

The hydroponic chamber fabricated and supplied by KVK can produce 25-30 kg sprouted fodder per day that is sufficient for 2-3 cows. The unit measuring 2 ft×7ft×8ft size is made up of 16 gauge GI tubes, 16 gauge aluminium sheet roofing and UV stabilized HDPE shade net enclosure. The chamber equipped with 35 numbers of 2×1 ft



Composting mix

The azolla unit of KVK having bed size of 10 ft×4 ft is made up of 16 gauge GI tubes and HDPE sheets. It can produce 350-500 gm azolla per day that can supplement nutritional requirements of animals, birds and fish grown in your home.

Microbial consortium for composting is a product of Kerala agricultural university. It can be used for converting a variety of wastes including food waste and fish market waste into quality organic manure by aerobic composting.



Hydroponic fodder chamber

TECHNOLOGY UPDATES

1. Jayanti Rohu developed by ICAR-Central Institute of Freshwater Aquaculture, Bhubaneswar is an ideal species for commercial farming in natural fresh water ponds having year-round water availability.



2. The fish silage developed by ICAR-Central Institute of Fisheries Technology, Kochi diluted to 0.5 per cent can be used as a liquid organic foliar spray for vegetable crops to enhance plant health.

3. Nursery rearing of Asian Seabass fry stocked at the rate of 250 numbers in happa nets of size (1.2 m x 1.2m x 1.2m) feeding formulated pellet feed 5 times daily, performing grading once in 4 days and replacing happa nets once in 10 days can enhance survival by 63 per cent.



4. The Detrodigest to mitigate ammonia, developed by Cochin university of science and technology is effective in improving water quality in fish ponds. KVK supplies detrodigest through its salescounter.



5. The probiotics Aqua feed supplement MY-1 and Enterotrophic™ developed by Cochin university of science and technology improves fish growth and reduces disease occurrence.



6. The quail breed Nandanam-III developed by Tamilnadu veterinary and animal sciences university, Chennai is suitable for meat purpose. This breed exhibited 40 per cent more weight gain than conventional breeds in the district.



7. The Total mixed ration (TMR) feeding technology of ICAR-National Dairy Research Institute, Karnal is an effective alternative for early lactating cows in fodder deficient areas. The TMR feed also results higher milk production with enhanced fat content.



8. The mineral mixture supplement for pigs developed by Department of animal nutrition, Kerala Veterinary and animal sciences university, Mannuthy need to be fed along with food waste to balance nutritional requirement. This mineral mixture can enhance growth rate and lower the mortality.



9. Shreyas is a short duration (115 days) high yielding paddy variety developed by Kerala agricultural university. This variety is less susceptible to false smut disease. Average yield of 6.4 MT/ ha recorded in the demonstrations conducted in Ernakulam district.

10. The pellet feed Bhetkiahar developed by ICAR-Central Institute for brackish water aquaculture, Chennai is suitable for Asian seabass fish as it results enhanced growth and uniform growth rate.

11. The composted sugarcane press mud, powdered dry cowdung and coirpith mixed in the ratio 2:1:1 is a suitable alternative for soil in growbags. This product is available in KVK salescounter.



12. Daincha is a green manure crop suitable for paddy fields. The seeds sown 50 days prior to land preparation at the rate of 20 kg/acre can produce 10 MT/acre green manure in situ. This green manure incorporated in soil can enhance soil organic matter content by 15 per cent.



13. IISR biomix Black pepper and Trichoderma biocapsules applied to bush peppers on monthly intervals reduce incidence of phytophthora diseases and other soil borne diseases. This can increase the yield by 14 per cent.



PROGRAMMES FOR STUDENTS

Rural agricultural work experience (RAWE) programme

KVK conducted Rural agricultural work experience (RAWE) programme for BSc (Agriculture) students of Dr. B R Ambedkar University, Agra during the period 17th February to 11th July 2020. The participated students worked in the fields of KVK's partner farmers and interacted with them. The students were also trained on branding and marketing of farm produce.



The students in a fish farm near Karumaloor, Ernakulam

Michigan state university students on exposure visit

Undergraduate Social science students from Michigan State University, USA visited KVK's partner farmers fields on 11th June 2019 as part of their Student exposure training programme (SETP) at ICAR-Central Marine Fisheries Research Institute Kochi. Dr.P.Muralidharan, Principal Scientist and Head, ICAR-KVK Alappuzha also interacted with the students.



Michigan state university students visiting medicinal plant farm near Thammanam

Saplings to school students

The KVK in collaboration with Prof.K.V.Thomas-Vidhyadhanam trust distributed curryleaf saplings to school students of Ernakulam district. The programme was inaugurated by Hon'ble Governor of Kerala Shri. Arif Muhammed Khan, on 7th November 2019 at Thoppumpady, Ernakulam.



Hon'ble Governor of Kerala Shri. Arif Muhammed Khan distributing saplings

Sales melas

KVK conducted vegetable seedling sales mela at Palluruthy inaugurated by Shri. C. K. Peethambaran, President, Palluruthy block panchayath on 10th June 2019. High yielding hybrid vegetable saplings and seed propagated curry leaf seedlings were supplied. KVK conducted fruit sapling sales mela on 12th July 2019 at CMFRI, Kochi where quality saplings of fruit plants, tissue culture banana, curry leaf and bush pepper supplied. The KVK also conducted Bush pepper sales mela on 22nd February 2020 at CMFRI, Kochi and supplied 750 saplings.

Poultry chick sales melas were conducted at CMFRI, Kochi on 3rd April 2019, 19th June 2019 and 27th June 2019. Kada-knath, Thalasseri, Australorp and RIR chicks were supplied. KVK also conducted Pearlsport seed sales mela at CMFRI on 28th June 2019.



Pearlsport sales mela at CMFRI



Poultry Sales mela at CMFRI



Vegetable sales mela at Palluruthy

ENTREPRENEURSHIP DEVELOPMENT PROGRAMME

KVK conducted two batches of Entrepreneurship development programmes on Pearl spot (Karimeen) seed production technology during 2-3rd July 2019 and 29-30th August 2019. KVK aims to develop seed production entrepreneurs and extending market support to them through buy back arrangement. KVK is currently marketing Pearlsport seeds produced by similarly trained farmers from previous batches.



Participants of the Entrepreneurship development programme



Pearlspot seeds ready for supply at KVK

AWARENESS PROGRAMME ON FERTILIZER APPLICATION

KVK organized awareness programme on Scientific fertilizer application at CMFRI, Kochi on 22nd October 2019. Dr. A.K Sreelatha, Rice research station of Kerala agricultural university, Vyttila handled technical session followed by an interactive session by KVK experts.



Fertilizer application awareness programme

PARTICIPATION IN EXHIBITIONS

KVK participated in the exhibition in connection with Njattuvela fest at Choornikkara, Ernakulam on 22nd June, 2019. The organic agro inputs of KVK displayed.



Advt.V.S. Sunil Kumar, Honourable Minister for Agriculture and Farmers Welfare, Kerala visiting KVK stall

CELEBRATION OF IMPORTANT DAYS

SWACHHTA HI SEVA

Swachata Hi Seva activities were conducted at KVK from 11th September to 2nd October 2019. Mass campus cleaning drive and plastic debris collection from beach road were carried by KVK staff and farmers.



Swachata hi seva activity: Cleaning of beach road near KVK

LIVE WEBCAST OF PRIME MINISTER'S PROGRAMME FOR FARMERS

KVK live webcasted the inauguration of National animal disease control programme (NADCP) for FMD and brucellosis and nationwide Artificial insemination programme inaugurated by Hon'ble Prime Minister Shri. Narendra Modi. The webcast was held at Central Marine Fisheries Research Institute (CMFRI) on 11th September 2019. Farmers, KVK staff and representatives from Kerala animal husbandry department Dr. Sheeba Issac, Chief veterinary officer and Dr. Baby Joseph, Deputy director participated.



Live webcast of Prime Minister's programme

TREE PLANTING CAMPAIGN

The KVK conducted tree planting programme at its campus on 17th September 2019 as part of the nationwide tree plantation campaign. Casuarina saplings 3200 numbers sponsored by Department of Forests and wild life, Kerala and 600 numbers of mangroove saplings were planted. Mrs. Mini Dileep, Ward Member, Narakkal Grama Panchayah inaugurated the campaign and Mr. A. Manikandan, State marketing manager, Indian farmers fertilizer cooperative (IFFCO) was guest of honour.



Inauguration of tree planting campaign

INTERNATIONAL WOMEN'S DAY

KVK celebrated International Women's day on 8th March 2020 by conducting training on Setting up of homestead nutrigardens at it's campus. Nutrigarden kits containing vegetable seedlings, seeds and organic manures distributed to participants.



International women's day celebration at KVK

INTERNATIONAL YOGA DAY

The 5th International yoga day was celebrated at KVK on 21st June 2019. Yoga lessons were taught by Dr. Radhika Jayakumar and Dr. Bindu Regha, volunteers from Isha Foundation, Coimbatore. Eco-friendly yoga mats of Khadi Grama Soubhagya was also demonstrated.

SATELLITE SEED PRODUCTION UNIT

KVK commenced a Satellite seed production unit at Aluva in August, 2019 to produce quality planting materials of tuber crops and supply through KVK salescounter. The base materials of high yielding varieties of cassava, sweet potato and coleus developed by ICAR-Central tuber crops research institute, Thiruvananthapuram has been collected and being multiplied in the unit.



Sree padma variety of elephant foot yam at tuber crops planting material unit



Sree pavithra cassava variety at tuber crops planting material production unit

FPO CORNER

PERIYAR VALLEY SPICES FARMER PRODUCER COMPANY COMMENCED RETAIL OUTLET

The Periyar valley spices farmer producer company Ltd., established by KVK with financial support of NABARD has commenced a retail outlet at Kothamangalam. Branded produce of local farmers are sold at the outlet. The company has also received registration of Kerala responsible tourism mission to take up farm tourism development programmes.

KVK CONDUCTED SEED FARMER'S MEETS

KVK conducted two seed farmer's meets viz., Pearlsport seed farmer's meet on 17th January 2020 and Poultry farmers meet on 12th February, 2020 at CMFRI, Kochi and reviewed the progress. The seeds produced by the partner farmers are supplied through KVK's salescounter in a buy-back arrangement.



Pearlsport breeders meet



Poultry farmers meet

VIGILANCE AWARENESS WEEK

KVK observed Vigilance awareness week during 28th October to 2nd November 2019 in a befitting manner by organizing various programmes for staff, stakeholders and students. Integrity e pledge was taken by KVK staff and partner farmers. An essay writing competition on Make integrity a way of life was organized for students on 31st October 2019. Master. Muhammed Nabban, Ms. Avanthika Lakshmi and Ms.Nimmy K Jolly of Govt. boys higher secondary school, Aluva won first, second and third prizes.

RADIO TALKS

1. F. Pushparaj Anjelo. KVK's Farm shoppe, Kochi FM 102.3 broadcasted on 2-09-2019.
2. K.Smita Sivadasan. വീട്ടു വളപ്പിലെ കോഴി വളർത്തൽ, Kochi FM 102.3 broadcasted on 24-07-2019.
3. Vikas P.A. കരിമ്പിൻ കൃഷി രീതിയും സാധ്യതകളും, Kochi FM 102.3 broadcasted on 20-04-2019.
4. Shoji Joy Edison. ശീതകാല പച്ചക്കറി കൃഷി രീതികൾ, Kochi FM 102.3 broadcasted on 12-11-2019.

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1. K. Smita Sivadasan & Shinoj Subramannian. 2019.മുട്ടക്കോഴികളിലെ കൊത്തു കുടലും ചില സ്വഭാവ വൈകല്യങ്ങളും. Kerala karshakan, 64(11) pp: 67-68.
2. K. Smita Sivadasan & Shinoj Subramannian. 2020. വീട്ടു വളപ്പിലെ കോഴി വളർത്തൽ. Kerala karshakan, 65(8), pp: 60-62.
3. K. Smita Sivadasan & Shinoj Subramannian.2020. Azolla. Krishi Vinjana Pathrika of KVK (Ernakulam), 2/2020.
4. Shinoj Subramannian and Vikas, P A (Eds.). 2019. Course manual: Certificate course Aquaculture Worker Agriculture Skill Council of India (ASCI). Kochi. ICAR-Central Marine Fisheries Research Institute. 160 p.
5. Shoji Joy Edison and Shinoj Subramannian.2019. Poster presentation-Testing coirpith based planting media combinations for raising protray vegetable seedlings, Compendium on papers and abstracts Workshop on Organic farming in planta-
- tion crops-Present status and future prospects, CPCRI Kasaragod p 59.
6. Shoji Joy Edison and Shinoj Subramannian.2020. കുറ്റി കുരുമുളക് പരിപാലനം- Leaflet published by ICAR-KVK Ernakulam of CMFRI.
7. Shoji Joy Edison and Shinoj Subramannian.2020. വീട്ടുവളപ്പിലെ പേര കായ്ക്കാൻ, Kerala karshakan, 65(8), p.47.
8. Sumithra, T G and Reshma, KJ and Antony, Alan and Nair, V Anusree and Sub-

LIVE FISH VENDING DEMONSTRATED

KVK demonstrated live fish vending as a means to supply fresh fish to consumers while realizing premium price and additional income to farmers. The demonstration was conducted at CMFRI, Kochi during 14 to 16th November 2019 in connection with Kisan mela. The fish Asian seabass, Pearlsport, Red snapper, Tilapia and Giant trevally were supplied. Live fish vending require careful harvesting, aerated water tanks for transportation and maintaining fish live. Maintaining precise water quality and species specific salinity involves technical skill. Total 1000 kg of live fish worth INR 5.0 lakh could be supplied during the demonstration.



The live fish counter on the CMFRI campus in Kochi

ramanniyan, Shinoj and Sayooj, P and Vijayagopal, P (2019) Outlining Metabolic Versatility of a Commercial Waste Composting Consortium in Fish Waste Management. Fishery Technology, 56. pp. 68-73.

9. Vikas P A & Shinoj Subramannian. 2019. കരിമ്പിൻ കൃഷി. KrishiVinjanaPathrika of KVK (Ernakulam), 2/2019.

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12. Vikas P.A & Shinoj Subramannian. 2019. കൂടു മത്സ്യ

കൃഷിക്കൊരു വഴികാട്ടി. Kerala karshakan, 24(11): pp 20-22.

13. Vikas P.A and Shinoj Subramannian. 2019. കരിമ്പിൻ വിത്തുല്പാദനം.. Krishi jaggaran, 3(6): pp: 44-46.

14. Vipinkumar, V P and Vikas, P A and Subramanniyan, Shinoj and Aswathy, N and Athira, P V (2019) കൂട് മത്സ്യകൃഷി. Other. ICAR - Central Marine Fisheries Research Institute, Kochi.

PROGRAMME PARTICIPATION

Shoji Joy Edison, Subject matter specialist (Horticulture)

1. Zonal research and extension advisory council workshop on 23rd July 2019 at Regional agricultural research station, Kummaramakom, Kottayam.
2. Coconut development council meeting on 24th July 2019 at Office of the Principal agricultural officer-Ernakulam.
3. Block level Kisanmela organized by Department of Agriculture, Kerala on 22nd June 2019 at Koovappady, Ernakulam.

4. Annual review meeting of Kerala state planning board funded project Enhancing economic viability of coconut based land use systems for the land use planning in kerala state on 29th May, 2019 at ICAR-Central Plantation Crops Research Institute, Kayamkulam.
5. Kisan Gosthi on 23rd October 2019 organized by Agricultural Technology Management Agency (Ernakulam) at Pallipuram.

Dr. PA Vikas, Subject matter specialist (Fisheries)

1. Business meet of farmer producer organizations organized by National bank for agriculture and rural development (NABARD) at Kadamvanthara, Ernakulam on 19th December 2019.
2. Kisan Gosthi on 23rd October 2019 organized by Agricultural Technology Management Agency (Ernakulam) at Pallipuram.

COLLABORATIONS

The KVK collaborated with various organizations by sharing its expertise for their programme during the year 2019-20

Agricultural Technology Management Agency (ATMA), Ernakulam:

Lecture to fish farmers on Prospects of brackish water fish farming on 23rd October 2019 at Edavanakkad by Dr. PA Vikas, Subject matter specialist (Fisheries), Lecture to farmers on Intensive agriculture cropping models to enhance income from households on 22nd June 2019 at Koovappady, Capacity building programme to farmers on Organic

vegetable cultivation on 23rd October 2019 at Krishi Bhavan, Pallipuram by Shri. Shoji Joy Edison, Subject matter specialist (Horticulture), Training programme to farmers on Quality of organic manures on 11th December 2019 at Ernakulam by Shri. F. Pushparaj Anjelo, Subject matter specialist (Agricultural Extension).

Agricultural Technology Management Agency (ATMA), Thrissur:

Training to farmers on Homestead poultry farming on 11th December 2019 at Kochi by Dr.K.Smita Sivadasan, Subject matter specialist (Animal husbandry).

Agricultural Technology Management Agency (ATMA), Kanyakumari:

Training to farmers on Quality control of organic manures at CMFRI, Kochi on 29th November, 2019 by Shri. F. Pushparaj Anjelo, Subject matter specialist (Agricultural Extension).

National institute of fisheries administration and management (NIFAM), Aluva:

Lecture to fisheries department officials on Brackish water fin fish farming: prospects and challenges on 11th April 2019, Training to farmers on Cage fish culture management on 1st August 2019 by Dr. PA Vikas, Subject matter specialist (Fisheries).

Fish farmers development agency (FFDA), Ernakulam:

Capacity building programmes to fish farmers on 12th June 2019 at Kumbalangi and 30th July 2019 at Edavanakkad by Dr. PA Vikas, Subject matter specialist (Fisheries).

Palliyakkal service cooperative bank, Ezhikkara, Ernakulam:

Capacity building to SHG member farmers on Cage fish culture on 19th July 2019 by Dr. PA Vikas, Subject matter specialist (Fisheries).

ICAR-Krishi vigyan Kendra (Pathanamthitta):

Training to Pathanamthitta farmers on Fish feed management on 4th October 2019 at Pathanamthitta KVK by Dr. PA Vikas, Subject matter specialist (Fisheries).



ICAR- Krishi vigyan Kendra (Kollam):

Training on Hygienic fish drying at KVK Kollam on 29th September 2020 by Smt. P Sreeletha, Subject matter specialist (Home science).

ICAR-Central Inland fisheries research institute (CIFRI), Kochi station:

Lecture to farmers on Fresh water farming problems and opportunities on 11th December 2019 at CMFRI by Dr. PA Vikas, Subject matter specialist (Fisheries).

ICAR-Central plantation crops research institute, Regional station, Kayamkulam:

Lecture to participants of Diploma in agricultural extension management course on Agro entrepreneurship development at Kayamkulam on 27th June 2019 by Shri. F. Pushparaj Anjelo, Subject matter specialist (Agricultural Extension).

Kerala agricultural university, Vellanikkara:

Lecture to farmers on Prospects of Aquaculture on 10th January 2020 at Edappal by Dr. PA Vikas, Subject matter specialist (Fisheries).

Agency for development of aquaculture (ADAK), Kerala:

Training on Innovative technologies in aquaculture at ADAK Farm & training centre, Poyya on 25th February 2020, and on 27th February 2020 at Aquaculture training center, Narakkal by Dr. PA Vikas, Subject matter specialist (Fisheries).

St Teresas college, Ernakulam:

Training to students on Urban Horticulture on 19th July 2019 by Shri. Shoji Joy Edison, Subject matter Specialist (Horticulture).

Department of Agriculture, Ernakulam:

Lecture to farmers on Prospects of Farmer producer organizations at Angamaly on 26th November, 2019 by Shri. F. Pushparaj Anjelo, Subject matter specialist (Agricultural Extension).

OBITUARY



SMT. RINCY K.R.

31 YEARS

Jr Stenographer
KVK (Ernakulam), CMFRI
11.05.2019

CMFRI NEWS

CMFRI SUCCEEDED IN HYBRID CLOWNFISH PRODUCTION

The hybridization between *Percula* clownfish and Black ocellaris clownfish was achieved by a team of scientists at Mandapam regional centre of ICAR-Central marine fisheries research Institute. The hybrids exhibited comparatively higher growth rate and marked difference in banding pattern.



Hybrids of Black ocellaris and *Percula* clownfish

INDIAN POMPANO: PROMISING SPECIES FOR MARICULTURE

Indian pompano (*Trachinotus mookalee*) is a promising candidate species for Mariculture due to faster growth rate, easy adaptability to culture environment and high market demand. The Indian pompano breeding technology had earlier been developed by Visakhapatnam regional centre of ICAR-CMFRI and seeds supplied from the centre. The demonstration of profitable Indian Pompano cage farming by CMFRI at Vishakhapatnam has given confidence to trigger large scale development of cage mariculture in the country.



Indian Pompano cage farming at Vishakhapatnam

SEA CAGE FARMING DEMONSTRATED

The ICAR-Central marine fisheries research institute demonstrated profitable sea cage farming of Cobia fish in Gulf of Mannar and Palk bay in Tamil nadu with funding of National fisheries development board (NFDB), Hyderabad.



Aerial view of cobia harvest from open sea cage farms at Mandapam, Tamilnadu

SEAWEED FARMING PROVES SUCCESS

The seaweed farming implemented by ICAR-CMFRI near Thondi in Ramanathapuram, Tamil Nadu under Scheduled caste sub plan (SCSP) proves to be an additional livelihood source for the fishers. The farm gate marketing arrangement made by the Institute helped the fishers to get instant payment. Short duration of the crop (45 days) and faster returns are the attractions of seaweed farming in the area.



CMFRI team interacting with seaweed farmers



ICAR-KRISHI VIGYAN KENDRA (ERNAKULAM)

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