



# KVK Times

A Window to KVKs of  
ICAR-ATARI, Zone-XI



Vol - 01 Issue 16

16-28 February, 2022.

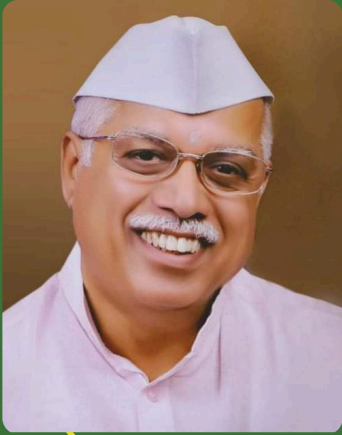


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Azadi Ka  
Amrit Mahotsav

ICAR-Agricultural Technology Application Research Institute  
Zone XI, Bengaluru  
ICAR-K H Patil Krishi Vigyan Kendra, Hulkoti, Dist. Gadag

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## MESSAGE

Agriculture and allied sectors are not only critical to meet the food and nutritional demands of the growing population but also the overall development of the country. At present, there are challenges like doubling of farmer's income by utilizing optimal and eco-friendly resources-land, labour, capital and management, producing "more-from less" with agriculture becoming more and more knowledge demanding. KVKs are playing vital role in enhancing the agriculture food production by introducing location specific technologies, organizing training to update the extension personnel with emerging advances in agriculture research, organizing short term and long term training courses and Front Line Demonstrations for farmers.

I feel very proud and happy about ICAR- K.H.Patil Krishi Vigyan Kendra, Hulkoti for their constant efforts in dissemination of technologies to the farming community across the district and helping the farmers in adopting the same. They have been focusing on thrust areas viz., soil and water conservation, rain water harvesting, introduction of improved varieties, integrated crop management, crop diversification and livestock technologies. At this juncture, I congratulate ICAR- K.H.Patil Krishi Vigyan Kendra, Hulkoti for bringing out the 16th issue of KVK TIMES of Zone-XI for this fortnight from 16-28 February, 2022.

I complement Dr. V. Venkatasubramanian, Director, ICAR-ATARI Bengaluru, Zone XI and all the staff of each KVK for their collective effort in bringing out the "KVK TIMES" Volume-I, Issue-16, that has emphasized the KVK activities. I wish KVK system reach greater heights in Indian Agriculture and continue to contribute for betterment of farming community.

**Sri D. R. Patil**  
**Chairman**

ICAR- K.H.Patil Krishi Vigyan Kendra  
Agricultural Science Foundation, Hulkoti



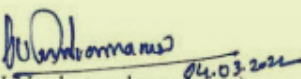
## FOREWORD

Krishi Vigyan Kendras are playing pivotal role in handholding of farmers through technological backstopping for enhancing the productivity of crops and enterprise keeping in mind profitability and sustainability. 'Believing through seeing' and 'Learning by doing' is most appropriate to the KVKs, as the Scientists and farmers are jointly involved in implementing KVK mandated activities to reach the mission of doubling the farmers income. KVKs are expanding the horizon from elite extension to innovation, market linkage, FPOs, processing and value addition.

A first of its kind virtual platform, KVK TIMES which documents fortnightly activities of each of the 48 KVKs of Zone-XI is gaining a real momentum. The news items covered in issues made an impact that is long lasting. Most of the news items published in the TIMES has got the potential of cross learning among KVKs and worth reading. This should boost the morale of all of us and many such noteworthy efforts of our fraternity in the zone.

I acknowledge the support rendered by Dr. M.B.Chetti, Vice Chancellor and Dr. Balachandra Naik, Director of Extension, UAS, Dharwad for their continuous support to KVKs in their jurisdiction.

ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti has done commendable job in bringing the 16th Edition of KVK Times and herewith I praise the efforts of Dr.L.G.Hiregoudar, Senior Scientist and Head and also the whole KVK team for compilation and edition of important events organized by KVKs in the Zone. I request all the KVKs to continue to contribute at their best and address the challenges faced by farming community to achieve the desired results.

  
(V Venkatasubramanian)

**V. Venkatasubramanian**

Director, ICAR-ATARI, Zone-XI  
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## ACKNOWLEDGEMENT

I am extremely proud and privileged to be entrusted with responsibility to compile and edit the KVK TIMES from 16-28 February, 2022 during 75th Year of Independence Day of India. I express my sincere gratitude to Director, ATARI, Bengaluru for giving us this opportunity. I also express my deepest sense of gratitude and heartfelt thanks to our Chairman, Shri D.R.Patilji for his valuable guidance, constant encouragement and moral support in carrying out our KVK activities in serving the farming community.

I avail this opportunity to express my heartfelt thanks to respected Dr. V. Venkatasubramanian, Director, ICAR-ATARI, Bengaluru for overwhelming support and valuable suggestions during compilation and editing of this issue. On my personal note, it is an immense pleasure to express my sincere gratitude to Dr. B.T.Rayudu, Principal Scientist, ATARI, Bengaluru and Nodal Officer of our KVK for constantly encouraging us to carry out the mandated activities. I would also like to place on record the help of all the Scientific and Administrative Staff of ATARI, Bengaluru for their continuous support and guidance in improving the activities of KVK.

I pay my heartfelt gratitude to Dr.M.B.Chetti, Vice Chancellor, Dr. Balachandra K. Naik, Director of Extension and Dr. Shripad Kulkarni, Nodal Officer, UAS, Dharwad for their timely guidance and inspiration to carry out the various activities successfully.

My sincere thanks to all the Heads and Teams of KVKs of Zone-XI for sharing the valuable information on various activities carried out by their KVK. My heartfelt thanks to my entire team of ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti for their support and valuable suggestions in bringing out this issue of KVK Times in time.

**Dr. L. G. Hiregoudar**

Senior Scientist & Head  
ICAR-KHPKVK, Hulkoti, Gadag district

## ICAR-KVK, GADAG

### ONE DISTRICT ONE PRODUCT POST HARVEST TECHNOLOGY IN RED CHILLI

Red Chilli is an important spice crop and is predominantly cultivated in Gadag district owing to suitable soil and climate situations. Under “One District-One Product”, Byadagi type Chilli has been identified. Area under chilli is 20729 hectares with annual production of 31407 quintals. Farmers have been cultivating Byadagi Dabbi and Byadagi Kaddi type of red chilli which are known for its flavour, colour and pungency. Due to improper post harvest management high content of aflatoxin, high percentage of white fruits and unhygienic method of drying of chillies leads to less market value for the produce. To overcome this problem, Front Line Demonstration on solar drier was organised in Kurtakoti village of Gadag block. On farm training and group discussion on drying of chillies in solar drier was organised on 01-01-2022 and demonstrated to the farmers that in solar drier, drying is faster, reduction in labour intensity and aflatoxin content and get an clean and dark red colour chillies. The farmers expressed happiness about the technology. Thirty five farmers and farm women from Kurtakoti and Madolli villages participated.



### EDP ON VALUE ADDITION OF RED CHILLIES

The Chilli grown in Gadag district is known for its taste, colour, flavour and pungency. It is one of the important spice used in most of the dishes in Indian Cuisine. Most of the chilli grown in Gadag district is directly marketed without any processing which fetches less price for the produce. It's age old practice of preparing many products from Green Chilli as well as Red Chilli viz., methi chillies, red ripenned chilli chutney, green chilli pickle, green dried chilli, masala chilli powder, dried red chilli chutney etc. Because of modernisation, all traditional chilli products are slowly vanishing. To give rebirth to traditional foods, 3 farmers were selected for EDP on Value added products of chilli. The training on value added products coupled with facilitation in FSSAI Registration was done by KVK. Further, standup pouches, sealing machine and labels were provided to the farmers to initiate the chilli processing and marketing of chilli products. The products prepared by entrepreneurs were tested in food laboratory. The FSSAI License was issued and the entrepreneurs have initiated the enterprise.

## FIELD DAY ON NUTRI-GARDEN

Field day on Nutri-Garden was carried out in Shirol village of Gadag block on 25-01-2022. Under special programme, Nutri-Garden demonstration was laid out in 25 farmers field for the year 2021-22. Series of awareness programmes on Nutrition and health coupled with supply of seedlings of fruit crops, medicinal plants, vegetables and

leafy vegetables seeds, roots and tuber crop seeds were provided to the farm women. The field day was organised in Smt. Saroja Balchandrayya Dandin's field. Dr.Sudha Mankani, SMS (Home Science) briefed about the importance of establishing nutrition garden as well as role of fruits and vegetables in combating deficiency diseases. Smt. Nagavva Dandin expressed her happiness and motivated other women to establish nutrition garden in one or two



guntas. Shri Balachandrayya Dandin, Retired Teacher shared his experiences that for the last one and half month he has not purchased any vegetable from market. Exposure visit to nutrition garden was organised and 32 farmers and farm women participated in the field day.

## WORKSHOP ON "ENERGY CONSERVATION IN AGRICULTURE"



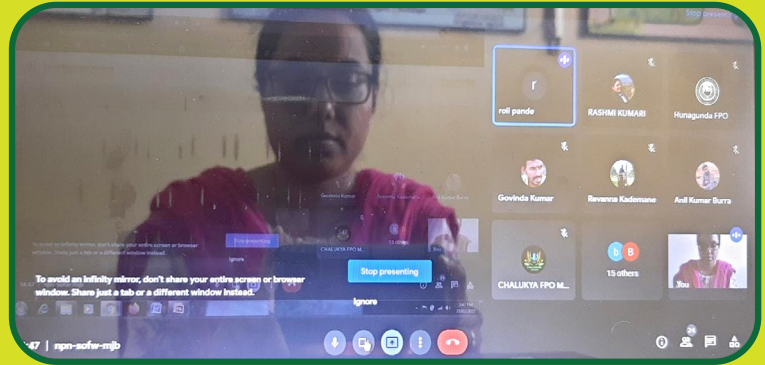
A workshop on "Energy Conservation in Agriculture" was organized at ICAR-Krishi Vigyan Kendra, Hulkoti, Gadag District sponsored by Petroleum Conservation Research Association (PCRA), South Zone, Chennai. Totally 31 farmers had participated in the program. Dr. Vinayaka H Niranjan, SMS (Ag. Engg.) elaborated about the energy input status in Indian agriculture, energy utilization pattern in agriculture, importance of conserving petroleum products and operating procedures to be followed to conserve energy sources. Participants interacted with the

speaker and shared their experiences on the workshop topic. Raised queries on efficient utilization of diesel engine operated agricultural machines and discussed about installation and maintenance of solar pumps and wind mill pumps. Literatures in vernacular language were distributed to the participants. Dr. Vinayaka H Niranjan concluded the workshop with a vote of thanks.

## ICAR-KVK, BAGALKOTE

### TRAINING ON DRY CHILLI

Series of trainings on dry chilli and organic turmeric have been planned for FPO members of Bagalkot district in collaboration with Food and Agriculture centre of excellence confederation of Indian industry, New Delhi. In this connection a webinar on post-harvest management in chilli was organised on 23.02.2022, lecture was delivered by Dr. Airadevi P Angadi, (Scientist Horticulture) for Hunagund Horticulture Farmers Producer Organisation, more than 30 members participated in the programme.



### MUSHROOM CULTIVATION TRAINING TO JAIL INMATES

Two training on mushroom cultivation one for Men and another for women inmates of jail were conducted by KVK, Bagalkote in collaboration with ICICI foundation at Jamakhandi on 25.02.2022. Dr. Airadevi P Angadi, Scientist (Horticulture) demonstrated mushroom production technique to inmates, both together 40 participants took the benefit of these trainings



### OFF CAMPUS FAP AT HOSUR VILLAGE

An awareness programme was conducted on 25.02.2022 for dairy farmers and farm women of the Bagalkote district at Hosur village. A total of 15 farmers participated and got benefit of this programme. Mr. Basavaraj Nagaleekar (SMS Agrometeorology) explained to farmers about weather, climate, climate change, reasons for climate change, effects of climate change on agriculture, mitigation strategies, GKMS project, Objectives of DAMU and Weather based Agro-advisories. Also explained about Weather related mobile applications like Meghdoot, Mausam, Damini. Mr. Sunil Lamani (Agromet Observer) helped to farmers about installation of Meghdoot application in mobile.



## ICAR-KVK, BALLARI

### CAPACITY BUILDING PROGRAMME ON PROFITABLE DAIRYING AND LIVESTOCK MANAGEMENT

ICAR-KVK, Ballari organized capacity building programme on profitable dairying and livestock management for farmers and rural youths of Ballari district during second fortnight of February 2022. Five such programmes, each of 3 days duration were conducted. Different aspects of livestock management like profitable dairying and entrepreneurship development, stall fed sheep and goat farming, value addition to milk and milk products, fodder production and preservation methods and disease management in livestock were covered during capacity development. A total of 200 farmers took part in the training programmes. ICAR-KVK, Ballari collaborated with Dept. of AHVS, Ballari for conducting the programme. Dr. Ramesh, B.K., Senior Scientist and Head taught on various aspects of scientific dairying and disease management in livestock. Dr. Ravi.S., Soil Scientist lectured on fodder production and role of livestock in organic farming. Dr. Shilpa, H., Home Scientist, shared her expertise on value addition to milk. Dr. T. Shashidhar, Chief Veterinary Officer, Training centre, Dept. of AHVS, Ballari arranged for hands on training on various aspects of training at farmers fields. Dr. Srinivas, R., Assistant Director, Dept. of AHVS, Ballari, Dr. Rajashekar, Dr. Paveen Banakar and Dr. Manjunatha of Dept. of AHVS participated as resource persons in the training programme. All the participants were given certificate of participation on successful completion of training programme.



## ICAR-KVK, BELAGAVI-1

### 5TH BATCH DAESI COURSE INAUGURAL CEREMONY

ICAR-BIRDS Krishi Vigyan Kendra, Tukkanatti, Belagavi-1 in association with Govt. of India, MANAGE Hyberbad, University of Agriculture Science, Dharwad SAMETI (North), Dept. of Agriculture & ATMA Belagavi, has organised DAESI 5th Batch (TP No.: 1860) Inaugural ceremony on 25/02/2022. Program was presided by Shri. R. M. Patil, Chairman, ICAR-BIRDS KVK, Belagavi-1. In his presidential address stated that adaption of digital technologies in agriculture in order to increase the efficiency in farming. Also, farmers have to adapt natural farming and organic method of cultivation. Dr. M. Gopal, Professor and State Nodal Officer for DAESI and Coordinator SAMETI (North), UAS, Dharwad had inaugurated the programme. While delivering the introductory remarks, he had pointed out that the participants of course will be the para extension workers for farming community. The agro-service centres should work like trade cum knowledge centres to the farmers. Shir. M. M Nadaf, Asst.



Director of Agriculture and Ms. Leela Koujageri, ADA, DATC, Arabhavi were the chief guests of the ceremony. D.C Chougala, Scientist of KVK welcomed the guest, Parashuram Patil, Scientist delivered the vote of thanks and Adarsha. H S, Scientist Fisheries was the master of ceremony.

### PCRA TRAINING

Petroleum Conservation Research Association sponsored training programmes were conducted in KVK, Tukkanatti on 15th and 16th of February, 2022. The training was aimed to bring awareness among farmers on diesel conservation by adapting best SOPs in farm mechanization and its maintenance. Also, this training had enlightened farmers about the use of solar power in agriculture and government's financial assistance through KUSUM Scheme. Two trainings were conducted for total of 52 farmers. During this training, farmers were also given information on biodiesel production and its use in farm mechanization. Adarsha. H S, Scientist of KVK have delivered the lectures during the training.



## ICAR-KVK, BELAGAVI-2

### INTRODUCTION OF KDS VARIETIES TO BOOST THE PRODUCTIVITY OF SOYBEAN FOR DOUBLING FARMERS INCOME

Soybean is a major oilseed crop of the Belagavi district covering an area of 98,289 hectares. Soybean variety JS-335 is cultivated by majority of the farmers in the district which has become susceptible to rust in recent years and also encountered with pod shattering resulting upto 50 per cent yield loss. Seed production in soybean has several problems. As soybean seed is classified in the least storable group. Soybean seed production and storage is a constraint. Besides its inherent low viability, soybean seed is also highly prone to mechanical damage during processing and transportation. The seed is so sensitive that even before its harvest, it can be adversely affected by field weathering. These factors affect seed viability and vigour severely at times even maintaining the minimum germination standard (70%) till next season becomes difficult. As seed multiplication ratio (SMR) in this crop is low, coupled with high seed requirement, forms a major bottleneck in augmenting the availability of quality seed. Further, large quantities are prone to be rejected as either being undersized or on the basis of the presence of other distinguishable varieties (ODVs). Looking into the gravity of the problem, there is a tremendous scope for improved seed production technology dissemination in the district. The farmers of these regions are looking forward for improved varieties with high yielding ability. In this regard, ICAR- Krishi Vigyan Kendra, Mattikopp, Belagavi took up seed production of improved varieties viz., KDS-726 (Rust tolerant and high yielding) and KDS-753 (Rust resistant and high yielding) released by MPKV, Rahuri.

Seed production of KDS-726 and KDS-753 was taken up in an area of 15 and 18 acres respectively during summer 2021 in farmers participatory mode. Organized two capacity building programmes for farmers for quality seed production of soybean seeds. As a result of this, KVK produced 315 q of soybean seeds during summer -202. The seeds produced were sold to the farmers of the region and adjoining districts Dharwad, Haveri, Bagalkot and other districts like Bidar and Gulbarga for area expansion under KDS series.



## ICAR-KVK, CHAMARAJANAGARA

### FIELD DAY ON INTEGRATED CROP MANAGEMENT IN WATERMELON

ICAR KVK, Chamarajanagara conducted a Field day on Integrated Crop Management in Watermelon at Balachavadi village, Gundlupete Tq., and Chamarajanagara district on 23.02.2022. On this occasion 26 farmers participated. This field day was conducted by Dr. Pampanagouda. B, Plant Pathologist and he briefed about the plant protection technologies, which helpful for reducing the insect, pest and disease incidence. Dr. Yogesh. G.S, Scientist (Soil Science), ICAR KVK, Chamarajanagara briefed about the nutrient management and its importance in Watermelon.

Mr. Rajath. H. P, SMS (Agrometeorology), DAMU Project, ICAR KVK, Chamarajanagara briefed about the weather forecasting during different stages of crop and weather based pest and disease development in watermelon and other crops.



### FIELD DAY ON INTEGRATED PEST AND DISEASE MANAGEMENT IN SMALL ONION

ICAR KVK, Chamarajanagara conducted a Field day on Integrated pest and disease Management in Small onion at Beratahalli village, Gundlupete Tq., and Chamarajanagara district on 09.02.2022. On this occasion 25 farmers participated. This field day was conducted by Dr. Pampanagouda. B, Plant Pathologist and he briefed about the integrated pest and disease management technologies, viz., seed treatment, use of FYM enriched with bioagents. Use of yellow and blue sticking traps and needbased plant protection measures. Which would be helpful in reduction of the pest and disease incidence. Dr. Yogesh. G.S, Scientist (Soil Science), ICAR KVK, Chamarajanagara briefed about the nutrient management and its importance in Small onion.



Mr. Adarsh., Agrometeorology Observer, DAMU Project, ICAR KVK, Chamarajanagara briefed about the weather forecasting during different stages of crop. Mr. Abhishekh. P.S., Scientist (Agril. Extn.), ICAR KVK, Chamarajanagara is also participated in this programme.

## ICAR-KVK, CHIKKABALLAPURA

ICAR KVK, Chikkaballapura organized DAESI certificate distribution and inauguration programme at College of Sericulture, Chintamani on 28.02.2022. Dr. P. Venkataravana Dean (Seri) welcomed the gathering, Dr. Rajendra Prasad, Honorable Vice Chancellor, UAS, Bangalore along with other dignitaries inaugurated the programme and addressed the participants about the use of information communication technologies and networking for the benefit of farming community. Dr. Devakumar, Director of Extension, UAS, Bangalore explained about the role of dealers in transfer of technologies and urged to provide timely agro advisory services to the farmers. Dr. Papireddy, Senior Scientist and Head, KVK, Chintamani asked the participants to have good contact with scientists and provide solutions to farmers problems and delivered vote of thanks for the gathering.



## ICAR-KVK, CHIKKAMAGALURU

### WORKSHOP ON CARDAMOM AND BLACK PEPPER

I.C.A.R-Krishi Vigyan Kendra, Chikkamagaluru in collaboration with Spices Board, Mudigere organized a Workshop on Cardamom and Black pepper on 22.02.2022 at Krishi Vigyan Kendra, Chikkamagaluru.

Dr. Krishnamurthy, A. T, Senior Scientist and Head in his inaugural speech he briefed about the KVK extension activities.

Programme was inaugurated by Shri. Balakrishna Gowda, President, Taluk growers Association, Mudigere, he highlighted that, training programmes organizing by the Krishi Vigyan Kendra and advised the farmers to make utilize of these training programmes.

On this occasion facilitated Shri. Jomy Matthew, Pepper grower, who awarded International Pepper Committee, 2020-21 award.

Dr. Usmaan, N. M, Assistant Director, Spices Board, Shivamogga, delivered the lecture on advanced production technologies of pepper

Dr. Girish R, Scientist (Plant Protection), KVK, Chikkamagaluru briefed about the integrated pest and disease management in cardamom, and improved technologies developed in cardamom.

Dr. Shivaprasad M, Assistant Directorate of Research, ZAHRS, Mudigere, briefed about the technologies in spice crops, and he has requested to practice these advanced technologies in order to enhance the production.

Total 60 farmers were got benefitted out of this training programme.



## ICAR-KVK, CHITRADURGA

### FARMERS PARTICIPATORY ONION SEED PRODUCTION

A special innovative programme on onion seed production technologies by ICAR-KVK, Chitradurga covering farmers of three taluks viz., Hosdurga, Hiriya and Chitradurga clusters covered 6 acres area. Technical guidance of breeder seed production of onion varieties Bhima Super and Bhima Shakthi were selected and produced 18 quintals of onion seeds in this programme.



## ICAR-KVK, DAKSHINA KANNADA

### BLOCK LEVEL SEMINAR ON INTEGRATED CROP MANAGEMENT AND VALUE ADDITION IN COCONUT

The ICAR-Krishi Vigyan Kendra (Dakshina Kannada) Mangaluru in association with Coconut Development Board (Ministry of Agriculture and Farmer welfare, Government of India) Regional Office, Bengaluru organized the Block Level Seminar on "Integrated crop management and value addition in coconut" at Primary Agricultural Credit Cooperative Society Limited Sullia on 17.02.2022 to impart required knowledge and skill on scientific coconut cultivation for the farming community of Dakshina Kannada. The seminar was inaugurated by Shri. Aravazhi, E., Director (incharge), Coconut Development Board-Bengaluru and in his address highlighted about the available schemes, programmes and activities conducted by the board. Besides this interacted with the farmers of Sullia taluk to understand their issues and needs for effective implementation of the various programmes of the board. Dr. T. J. Ramesha, Senior Scientist and Head, ICAR-Krishi Vigyan Kendra (D.K) Mangaluru delivered opening remarks and presided over the programme. Dr. K. B. Hebbar, Principal Scientist and Director (Incharge), CPCRI-Kasargod graced the occasion as chief guest and briefed about the value addition in coconut for doubling the

farmers income. Dr. Kedarnath, Scientist (Plant Protection) coordinated the programme and highlighted about the integrated management of pest and diseases. Dr. Nagaraja, N. R., Scientist (Crop Improvement) CPCRI, Regional Station, Vittal, Dakshina Kannada participated as a resource person. A total of 69 participants comprising of Farmers/farm women and officials of Primary Agricultural Credit Cooperative Society Limited, Sullia were participated in the programme.



## ICAR-KVK, DAVANAGERE

### AWARENESS PROGRAM ON CONSERVATION OF ENERGY (FUEL)

ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere Conducted the awareness program in Collaboration with Petroleum Conservation Research Association, Southern Region at Arasanigundi, Jagalur taluk. Mr. Mallikarjuna B.O. SMS (Agronomy) gave talk on conservation of fuel in major sectors like transport, domestic, agricultural and industrial, also created awareness on the recycling of the waste to wealth. Interacted with the farmers on growing of bio-fuel plants like Jatraopha, Simarouba, Mahau and Pongamia in waste land and bunds. In the programme 30 farmers were participated in the program.



### ON LINE TRAINING PROGRAM ON IMPROVED PRODUCTION TECHNOLOGY IN GROUNDNUT

ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere conducted the online training program in collaboration with Department of Agriculture on the Production Technology and Seed production of Groundnut. Mr. Mallikarjuna B.O., SMS (Agronomy) explained in detail about the production technology and character of improved variety GPBD-4 and G2-52. Interacted with the farmers on the suitable variety of groundnut to both seed and fodder.



**ನಿಜಯ ಕರ್ನಾಟಕ ನಮ್ಮ ದಾವಣಗೆರೆ**

### ಭತ್ತ ಬಿತ್ತನೆಗೆ ಬಂತು ಡ್ರಮ್ ಸೀಡರ್!

ಕೂಲಿ ಕಾರ್ಮಿಕರ ಕೊರತೆಗೆ ಪರಿಹಾರ | ಹಣ, ಸಮಯ, ಬಿತ್ತನೆ ಬೀಜವೂ ಉಳಿತಾಯ

ಬಿಜ್ಜೆ ಸೀಡರ್ ಬಳಸಿ ಭತ್ತ ಬಿತ್ತನೆ

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### DRUM SEEDER IN PADDY

ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere, Mr. Mallikarjuna B.O. SMS (Agronomy) created awareness on the use of Drum Seeder in paddy for the tail end farmers through media. Drum seeder technology is best suited for the farmers who are facing the labour problems for transplanting. The farmers in the tail end area can go for this technology as there will be acute shortage of water at the time of grain filling stage. The cost of production can be reduced with increase in the net returns. The Malebenuur area farmers were into this technology.

## ICAR-KVK, DHARWAD

### SPONSORED TRAINING ON MANGO CULTIVATION, PROCESSING AND VALUE ADDITION

ICAR-Krishi Vigyan Kendra, Dharwad has organized National Bank for Agriculture and Rural Development (NABARD), Dharwad sponsored training programme for FPO members and farmers on "Mango Cultivation, Processing and Value Addition" from 14-20 February 2022. In this training programme, various topics like quality production of mango, export, pruning and rejuvenation, high density planting, pests of mango and permissible insecticides, diseases of mango and permissible fungicides, soil testing and analysis, importance of soil solarization and use of weedicides, suitable intercrops and mulching, nutrient management, natural farming and water management, post harvest management, food preservation by chemicals, equipments and tools used in fruit and vegetables processing industry, hygienic practices in food processing industry, preparation of processed products from mango, requirements and procedures to be followed before starting the production and marketing unit were covered by experts from different institutes. Exposure visit to IIHR, Bengaluru, Shubham Packing House, Belur industrial area, Dharwad, Food Processing Lab, UAS, Dharwad and Excel Foods Pvt. Ltd., Tarihal,

Hubballi was arranged. Total of 25 FPO members and farmers participated in the training programme.



### TRAINING ON KITCHEN WASTE MANAGEMENT

ICAR-Krishi Vigyan Kendra, Dharwad has organized training programme on "Kitchen waste management" on 25.02.2022. In this training programme, various topics like quality production of vegetables using kitchen waste, management of kitchen waste, decomposition of kitchen waste were covered. Around 30 farm women from Dharwad and Navalagund taluka were participated in this training programme.

## ICAR-KVK, HAVERI

### HON'BLE VICE-CHANCELLOR, UAS, BENGALURU VISITED KVK HAVERI

The Hon'ble Vice-Chancellor Dr. S. Rajendra Prasad and Dr. T. K. Prabhakar Shetty, Retd. DE, UAS, Bengaluru visited the Krishi Vigyan Kendra Haveri (Hanumanmatti) on 24.02.2022. During their visit this is the first KVK established in Karnataka at Hanumanamatti, Ranebennur taluk of Haveri district. He also highlighted about KVK activities which is functioning actively and in limelight addressing major problems of the agriculture and horticulture crops and animal husbandry in the district. Then the key officials of UAS, Bengaluru visited the agriculture museum of KVK which has been maintained for farmers who visit every day and witnessed various new technologies to increase farmer's income. The Senior Scientist and Head of KVK Haveri Dr. Ashoka P explained about the various agricultural technologies released by UAS Dharwad, about the front line demonstrations and method demonstrations, field days which are displayed in the Museum which have been seen and appreciated by Hon'ble Vice-Chancellor and Retd. DE, UAS, Bengaluru.

Later, Dr. Mahesh Kadagi, Scientist (Animal Science) described about the hatchery unit, which is with temperature and humidity controller required to breed the chicken eggs. This would allow 200 hens to hatch in 21 days. Then, Dr. Santosh H.M. Scientist (Horticulture) explained about the seedlings of horticultural plants kept in the museum so which are grown in

the nursery center of KVK. Dr. Shantveerayya SMS (Agricultural Meteorology) explained to the Hon'ble Minister that blockwise weather forecast for the next five days on every Tuesday and Friday will be given to farmers and weather advisories through WhatsApp groups will also be sent to their mobile numbers. After this Hon'ble Vice-Chancellor and Retd. DE, UAS, Bengaluru visited Trichoderma lab and soil testing lab. Then Soil scientist Dr. Rajakumar G. R. explained about the soil and water testing that is carried out at this laboratory based on which soil health cards have been provided to farmers along with recommendation of fertilizers for various crops. The Hon'ble Vice-Chancellor and Retd. DE, UAS, Bengaluru personally seen the micronutrient analysis and express that the farmers have to utilise the facilities and expert available at this KVK.



## ICAR-KVK, KALABURAGI – I

### CAPACITY DEVELOPMENT PROGRAMMES ON PROFITABLE DAIRY FARMING & LIVESTOCK MANAGEMENT

ICAR-Krishi Vigyan Kendra, Kalaburagi – I organized “Capacity building of farmers through training programmes on profitable dairy farming and livestock management.” Totally 5 training programmes were conducted with each of 3 days duration. The different training programmes were Scientific dairy farming & entrepreneurship development (10th to 12th Feb, 2022), Scientific sheep & goat farming (14th to 16th Feb, 2022), Stall fed sheep & goat farming (17th to 19th Feb, 2022), Role of livestock in integrated farming system & doubling of farmers income (21st to 23rd Feb, 2022) and Profitable and sustainable dairy farming (24th to 26th Feb, 2022). In these training programmes participants of different age group, qualification, category and gender were actively involved. During training, experts in the field of animal husbandry and agriculture were participated as resource persons from department of Animal husbandry, University of Agricultural Sciences, Raichur staffs, Karnataka Milk Federation (KMF) and NABARD, Kalaburagi delivered lecture on various topics. Last day of every training programme, exposure visits organized to well established farmers Indigenous cow dairy farm, buffalo dairy farm, Stall fed goat farm, fodder cafeteria, vermicompost units, DATC, Kotanur (D), KMF, Kalaburagi and different demo units of KVK and ZARS, Kalaburagi. Also, method demonstrations were conducted like enrichment of

dry fodder by urea treatment, ensilage in poly ethylene bags (PBS), construction of azolla pits, chopping of dry and green fodder with chaff cutter machine, ectoparasiticide application to HF-Deoni cross bred cow, procedure of filling of vermicompost pit and collection & preparation of soil and water samples for analysis etc. Totally, 200 farmers/farm women/rural youth/unemployed youth/school dropout of the Kalaburagi and neighbour district were benefitted from these five training programmes.



### DIAGNOSTIC FIELD VISITS BY KVK SCIENTISTS

Diagnostic field visits to Safflower and Chilli at Taj Sultanpur and Nagur villages of Kalaburagi taluka, visited by Dr. Raju G. Teggelli, Senior Scientist & Head and Scientist (Entomology) along with Dr. Vasudev Naik, Scientist (Horticulture) and Dr. Zaheer Ahamed, Scientist (Pathology), ICAR-Krishi Vigyan Kendra, Kalaburagi-I on 19.02.2022 and 21.02.2022 respectively.

The performance of Safflower var.PBNS-12, ISF-764 and Annigeri varieties checked in North Eastern Dry Zone Black soil of the Kalaburagi district. The growth parameters and yield attributes, farmer feedback recorded during the visit and explained about the Integrated Pest and Disease management (IPDM) and Farmer Shivaputra, Gangadhar, Niranjana Dhanni and Saidappa involved in field visits.



## VISIT OF NABARAD, CGM

Sri. Neerajkumar Verma, Chief General Manager (CGM), Karnataka Regional Office, National Bank for Agriculture and Rural Development (NABARAD) and Sri. Rajkumar Patil Telkur, MLA, Sedam constituency & President, DCC Bank, Kalaburagi visited ICAR-Krishi Vigyan Kendra, Kalaburagi-I on 24th February, 2022 and interacted with the staffs and farmers about the KVK activities and technologies and visited to various demonstration units of KVK. In this occasion Sri. Ramesh Bhat, District Deputy Manager, NABARD, Kalaburagi, Dr. M. M. Dhanoji, ADR, ZARS, Kalaburagi accompanied.



## ICAR-KVK, KALABURAGI – II

### CAPACITY BUILDING PROGRAMME ON NATURAL FARMING AND ORGANIC FARMING PRINCIPLES AND PRACTICES

ICAR-KVK, Kalaburagi-II (Raddewadgi) and DATC, Kalaburagi jointly organized capacity building program on Natural farming and Organic farming principles and practices on 18-02-2022 at Aralagundagi village Jewargi Taluka. The event was inaugurated by local Mandal panchayat member Shree. Basavaraj and DATC Agricultural Officer Smt. Sujata, briefed about the importance of capacity development program. During the event Dr. N.Manjunatha, Scientist (Agronomy) addressed the participant and explained importance of Natural farming for sustainable farming in comparison with traditional/ chemical farming and also differences between natural and organic farming, principles and practices involved in natural farming. Utilization of on farm available resources for natural farming and also organic farming. Nutrient management under natural and organic farming, Pest and disease management in natural farming. Shree Laxman Kadabur Retired Agricultural Officer explained about programs related to natural and organic farming and also value addition. During the event more than 50 farmers, farm women and youths participated and local agricultural department assistants were also present.



## ICAR-KVK, KODAGU

### TRAINING PROGRAMME ON SCIENTIFIC DAIRY FARMING

ICAR-KVK Gonikoppal and dept. of animal husbandry and veterinary services Ponnampet jointly organised one day training programme on scientific dairy farming for the benefit of 35 farmers for the district. Dr. S.M Nagaraj deputy director (AH), veterinary training institute Hassan was the resource person. He taught about selection and breeding of dairy animals during the programme. Dr. Suresh S.C, SMS(livestock) gave lecture on balanced feeding and clean milk production in the modern dairy farming. Dr. Shantesh A.S chief veterinary officer, Veterinary hospital Ponnampet, taught on calf rearing, health management in dairy farming and government schemes available in department of AH&VS for the benefit of district farmers.



## ICAR-KVK, KOLAR

### AWARENESS ON TUTA ABSOLUTA MANAGEMENT IN TOMATO



Kolar district is known for its intensive and extensive cultivation of tomato throughout the year. The south American pinworm Tuta absoluta is creating havoc in tomato cultivation causing to 80-90 per cent crop loss. The farmers are using plant protection chemicals indiscriminately to manage the pest. In this regard, KVK, Kolar in collaboration with department of Horticulture has organized off campus capacity development programmes on 16th and 24th February, 2022 at Nellahalli, Malur taluk and Marandahalli, Bangarpet taluk respectively. The farmers were educated with

integrated management strategies of tomato pinworm. The use of incandescent bulbs pheromone traps from the day of transplanting, need based spray of spinosad @ 0.25 ml flubendiamide @ 0.20 ml or decametrin 2.5 EC @ 1 ml/liter. A total of 100 farmers got benefitted by the programmes.

### ROLE OF FPO'S IN DEVELOPING SERICULTURE

Kolar district is famously known for silk production. In order to establish Farmers Producer Organization (FPO) to provide services to small farmers and cover technical services, marketing, processing and other aspects of sericulture farming, KVK Kolar has organized an on-campus capacity development programme on formation, functions and prospects of FPOs in sericulture development. This programme was organized for department of Sericulture officials and FPO directors of Bengaluru rural district in collaboration with Center of Excellence for FPOs, UHS, Bengaluru campus on 21.02.2022. Around 40 members have participated in the programme.



## AWARENESS PROGRAMME ON CHIA, ODOP AND PCRA FOR FARMERS.

KVK, Kolar organized a district level workshop on "chia seeds scientific cultivation and value addition" and awareness program on "one district one product" (ODOP) in collaboration with Department Agriculture Kolar, UAS, GKVK, Bengaluru and KAPPEC Bengaluru. Around 65 farmers had participated in the programme.-22.2.2022 at KVK, Kolar. During the same programme an awareness programme on Energy consumption in agriculture and domestic fronts under the aegis of PCRA was also organized.



## ICAR-KVK, MYSURU

### VISIT OF CHAMARAJNAGAR SEED GROWERS TO JSS SEED PROCESSING & KVK DEMO UNITS

Visit of seed growers from Chamarajanagar district to ICAR JSS Krishi Vigyan Kendra Suttur. ICAR KVK Chamara-janagar coordinated the visit to JSS seed processing and KVK demo units. KVK Seed scientist Smt. H. V. Divya has facilitated the visit and briefed about activities carried out in seed processing unit and pulse seed hub project. Paddy and pulse seed growers from Chamarajanagar district have learnt about seed production and process-ing activities and visited to KVK demo units.



## WORKSHOP ON PETROLEUM CONSERVATION AT JSS KVK SUTTUR

ICAR JSS Krishi Vigyan Kendra Suttur has organized workshop on petroleum conservation at training hall KVK campus Suttur on 25th February 2022. KVK agronomy scientist Shri Shamaraj has delivered lecture on petroleum conservation and renewable energy sources to interested group of farmers who are managing coconut orchard, trainees have expressed their opinion about use solar pump and electrical vehicles and KVK agronomist also briefed about Petroleum Conservation Research Association (PCRA) and PCRA objec-tives with agriculture sector. Nearly 30 farmers have participated in the workshop.



## ICAR-KVK, RAICHUR

### ONE DAY WORKSHOP ON AGRI CLINIC AND AGRI BUSINESS CENTRE (ACABC)

ICAR-KVK, Raichur in collaboration with NABARD, Raichur organised a workshop “Agri Clinic and Agri Business Centre (ACABC) Scheme” on 18th February 2022. Dr. D.M. Chandargi, Honourable Director of Extension, UAS, Raichur inaugurated this workshop by watering the plant. During inaugural speech, Dr. D.M. Chandargi expressed unhappiness as agri graduates are shifting to urban area in search of job which resulted in less progress in agriculture sector compared to other sectors. He urged the young agri graduates to make use of subsidy based credit facilities of government and start up different agri enterprises coming under Agri Clinic and Agri Business Centre (ACABC) scheme.

Smt. Kalavati Distract Development Manager of NABARD, apprised of conducting ACABC workshop and Dr. U. Satish kumar, Professor of soil and water conservation engineering, informed that UAS, Raichur is selected as one of Nodal Training Institute (NTI) by MANAGE and 45 days agri entrepreneur programme would be and initiated in coming days by the university to the agri students.

Shri. Suresh kumar, Chief Manager, SBI, Raichur proclaimed that NABARD is paying out 44 per cent subsidy to SC/ST and women candidates and 36 per cent to other category. He also advised

that an agri graduate has to come forward to start up agri enterprises.

Shri. Narayana Raju (Retired AGM of NABARD) delivered keynote address highlighting norms and selection of candidates for ACABC schemes. Smt. Pushpalatha, ADA, Raichur gave the information on various schemes of agriculture department schemes. Shri. N. D. Chari (a agri entrepreneur) of Massdoddi village, Raichur taluk shared his experience on integrated farming system.

About 75 participants participated in the workshop including bank employees and B. Tech. (agri) students. Dr. S. N. Bhat welcomed participants and Dr. Shreevani G.N. anchored the workshop.



## ICAR-KVK, RAMANAGARA

### AWARENESS PROGRAM ON FEED AND FODDER MANAGEMENT FOR CATTLE IN COLLABORATION WITH NIANP

ICAR-KVK, Ramanagara in collaboration with ICAR-NIANP, Adugodi, Bangalore organized an awareness programme on “Feed and fodder management for cattle” under SCSP project entitled “Strengthening scheduled caste dairy farmers” implemented by NIANP, Bangalore. Under this project critical inputs such as feeds, milk cans, and vegetable seed kits will be sponsored for 300 selected SC dairy farmers from 20 Milk Unions of Magadi taluk. Dr. Raghavendra Bhatta, Director, NIANP briefed about the importance of balanced feed maintenance for sustained milk yield, how to feed the mulching cows, proportion of feeds, health and hygiene, balanced nutrition, dry fodder to green fodder ratio and importance of mineral mixture for cattle, and quantity of ready feeds requirement based on its body weight and milk yield per day. He also emphasized the importance of resting period before every lactation to get sustained increase in milk yield. Dr. Savita, S. M., Senior Scientist and Head, KVK Ramanagara highlighted how dairy sector can be profitable as additional income generating subsidiary activity to farmers and also urged farmers to attend livestock

related training programmes conducted by KVK Ramanagara. Dr. Dinesha, M. S., Scientist (Agronomy), KVK Ramanagara explained about improved cultivation practices of Napier, Guinea grass, Rhodes and emphasized the use of leguminous fodder crops such as Fodder Cowpea, Sesbania, Subabul, Hedge Lucerne, Lucerne, Stylo etc. More than 30 dairy farmers and farm women, experts from NIANP, KVK Ramanagara and local milk union leaders participated in the programme. Pelleted feeds, Milk Cans and Vegetable Seed Kits were distributed to selected SC beneficiaries on 26.02.2022 at Chandurayanahalli Milk Producer Cooperative Society.



## ICAR-KVK, SHIVAMOGGA

### CAPACITY DEVELOPMENT PROGRAMME ON “SCIENTIFIC COMMERCIAL POULTRY FARMING FOR EXTENSION WORKERS”

ICAR-Krishi Vigyan Kendra, Shivamogga conducted 3 days capacity development programme from 23-02-2022 to 25-02-2022 on “Scientific Commercial Poultry Farming” for Extension workers. Dr. M. Ashok, Scientist (Animal Science), KVK, Shivamogga has invited the guests and participants and given the primacy address on the programme. Dr. Hanumanthaswamy, B.C, Senior Scientist and Head, KVK, Shivamogga presided over the programme and given information on importance of scientific poultry farming and urge farmers to adopt new scientific technologies in poultry farming for better livelihood. Dr. T.N. Krishnamurthy, Associate Professor and Head, Department of Livestock Production Management, Veterinary College, Shivamogga inaugurated the programme and he mentioned the purpose and importance of Poultry farming by adopting new scientific technologies in commercial poultry farming to control diseases. In the programme Dr. M. Basavaraja, Scientist (Agronomy), and Dr. Jyothi M. Rathod, Scientist (Home Science), KVK, Shivamogga were participated as Guests. In the

3 days capacity development programme following topics viz., Scientific commercial layer farming system, Diseases of poultry and their management, Scientific commercial broiler farming system, Commercial broiler and layer chicks brooding, Commercial breeds of poultry (layer and broiler), Value addition in chicken and egg, Health management in poultry farms and nutritional diseases, Feed management in poultry farms and feed formulations, Poultry manure and its use in crop production, Chick production and hatchery management and Integrated farming system, were delivered by various resource persons from Veterinary college, Shivamogga and KVK, Shivamogga., Visit was arranged to hatchery unit, poultry farms and feed unit at veterinary college Shivamogga and Local broiler farms at Shivamogga. During the programme, Extension workers–scientists interaction was held. Participants were also taken to KVK poultry demonstration unit. Totally, 34 Extension workers were participated in the programme. All the scientists and staffs of KVK were also present in the programme.



## ICAR-KVK, TUMKUR - I

### TRAINING PROGRAMME ON SCIENTIFIC MANAGEMENT OF POULTRY BIRDS

ICAR KVK Tumkur 1 has been organised 3 days training programme for farmers on Scientific Management of Poultry birds under Capacity building of farmers through Training programme on Profitable Dairying and Livestock management from 14th to 16th February 2022, Dr. V. Govinda Gowda, Senior Scientist and Head, KVK Konehalli, Tiptur inaugurated this Training programme and emphasize the need of training programme to the farmers on Poultly farming . The Resource persons from KVK Tumkur-I and Animal husbandry polytechnic college, Tiptur, trained the farmers on important breeds of BYP farming, Housing, Brooding, Breeding, Feeding and Disease Management in poultry, Biosecurity

measures, Nutritive Values of eggs and Meats. Role of poultry in Tribal Community. Totally 48 Trainees were participated and received the certificates



### TRAINING PROGRAMME ON SCIENTIFIC SHEEP AND GOAT FARMING

ICAR KVK Tumkur 1 has been organised 3 days training programme for farmers on Scientific Sheep and Goat farming under Capacity building of farmers through Training programme on Profitable Dairying and Livestock management from 17th to 18th February 2022, Dr. V. Govinda Gowda, Senior Scientist and Head, KVK Konehalli,

Tiptur inaugurated this Training programme and emphasize the need of training programme to the farmers on sheep and goat farming scientifically followed by Dr Yogish, T. C., Farm superintendent, ARS Konehalli address the importance of training programme for self employment for school drop outs and unemployment rural youth. The Resource persons from Department of Animal science, UASB, GKVK, Bengaluru, Veterinary offices and KVK-Tumkur-I trained the farmers on housing management in sheep and goat farming, importance of vaccination, major diseases and its management, newer suitable fodder varieties and silage making for sheep and goat feeding. Totally 40 Trainees were participated and received the certificates



### TRAINING PROGRAMME ON SCIENTIFIC SHEEP AND GOAT FARMING

Two Days IPM Orientation Training Programme ICAR KVK Tumkur 1 has been organised 2 days IPM training programme for farmers In association with University of Agricultural Sciences, GKVK, Bengaluru and Regional Central Integrated Pest Management Centre, Bangalore from 25th – 26th Febraury 2022. Dr. D. K. Murthy,

Assistant Director, RCIPMC, Bangalore Inaugurated this Training Programme and address the farmers to adopt the eco-friendly IPM practices inspite of chemical fertilizers applications during this climatic change condition followed by Dr. V. Govinda Gowda, Senior Scientist and Head, KVK

Konehalli, Tiptur mentioned sustainability and income in agriculture can be achieved through the use of balanced organic and chemical pesticides in his presidential remarks. As part of the program, KVK organized an exhibition on eco-friendly integrated pest management technologies. The two-day training program included information and discussion on IPM Practices, use of bio-pesticides, disease and pest management in coconut, Bordax mixture production, impact of pest and diseases in agriculture due to climate change. Total 53

farmers were participated and benefited this 2 days training programme.



## INAUGURATION OF 5TH AND 6TH BATCHES OF DIPLOMA IN AGRICULTURAL EXTENSION SERVICES FOR INPUT DEALERS

One year DAESI (Diploma in Agricultural Extension Services for Input Dealers) programme for 4th and 5th batch was inaugurated at ICAR-KVK, Konehalli, Tiptur on 22nd Feb 2022 in collaboration with SAMETI, UAS Bangalore, MANAGE Hyderabad and Department of Agriculture, Tumakuru District. Dr. N. Devakumar, Director of Extension, UAS Bengaluru

inaugurated the Programme and addressed that Agricultural Input Dealers should make this Diploma course compulsory and also he mentioned the about the vital role played UAS Bengaluru and in bridging the identified technological gaps existing with the farmers. Pooja, Asst. director of Agriculture, Tiptur mentioned the impact happened on input dealers after the implementation of DAESI programme followed by Dr. V. Govinda Gowda, Senior Scientist and Head, KVK-Konehalli, Tiptur said that agricultural input dealers are the grossroot extension activists and they will have greater representation in future at the Government level to collaborate with farmers in Extension work in addition he advised them to be constant touch with KVK scientists to deliver better advisory.



## ICAR-KVK, TUMKUR II

### TRAINING AND AWARENESS PROGRAMME ON RENEWABLE ENERGY EFFICIENCY OF AGRICULTURAL PUMPSETS AND WATER CONSERVATION

Training and Awareness Programme on “Renewable Energy, Efficiency of Agricultural Pumpsets and Water Conservation” was held on 22nd February 2022 at Sir.M.Vishweshwaraiah Auditorium, Tumakuru University by ICAR - Krishi Vigyan Kendra, Hirehalli, Tumakuru, Sponsored by Karnataka Renewable Energy Development Ltd.,

Bengaluru. The programme started with ICAR, IIHR Song and Raita Geete. Dr. N. Loganandhan, Principal Scientist and Head, ICAR-KVK, Hirehalli, inaugurated the workshop in presence of Shri. Appannagouda, Project Engg. KREDL, Bengaluru.

In his inaugural address, he stressed the need for efficient use of renewable energy like solar and wind energy and utilization of these resources will ease the pressure on hydro-electricity, which is in scarcity. He also emphasised the role of energy requirement for agricultural production, energy wastage is a big concern, need to be addressed comprehensively and access to source of energy by all sections of society is a matter of concern.



Shri. Appannagouda, Project Engg. participated as resource person explained in details the advantages of Bureau of Energy Efficient Pumps in agriculture, usage of renewable energy and water conservation methods that farmers need to practice.

Resource persons Shri. Anand, Director, AVISHKAR, NGO, Tumakuru and Shri Raghu, Director, ORDER, NGO, Tumakuru shared the experiences of water conservation on community basis through National Innovative Climate

Resilient Agriculture (NICRA) project operational from 2011 to 2021 in D.Nagenahalli cluster villages, Koratagere taluk which was funded by ICAR, New Delhi. Water conservation is a tool to supply water to crops in critical periods of crop growth stages and ground water recharge. He also explained the advantages of preservation of rain water through farm ponds and check dams. Shri. Saranabassapa Patil, Innovative Farmer, Krishi Pandit, Kalburgi District shared his twenty one innovations which includes solar and water conservation techniques adopted by the farmers all over India.

Booklet and pamphlet on renewable energy, agricultural pump sets and water conservation were distributed during the workshop. About 117 farmers from Tumakuru district participated in the workshop.

The Programme compering was done by Shri K.N.Jagadish and Shri. P.R.Ramesh gave vote of thanks. This Programme was coordinated by K.N.Jagadish and Dr. N.Loganandhan, Head, KVK,Hirehalli,Tumakuru.



## ICAR-KVK, UTTARA KANNADA

### SKILL TRAINING FOR RURAL YOUTH ON “FOOD PROCESSING AND VALUE ADDITION”

ICAR- Krishi Vigyan Kendra, Uttara Kannada Sirsi, Karnataka in association with National Institute of Agricultural Extension Management (MANAGE), Hyderabad organized six days Skill training for Rural Youths (STRY) from 15.02.2022 to 22.02.2022 for unemployed rural youths/ farmers/farm women of Uttara Kannada district.

Inaugural programme was made on 15.02.2022. Dr. Ravi Y Scientist (Home Science) and Training



participants for coming forward to ensure their livelihood security. Later presidential remarks were made by Dr. Manju M J, Sr. Scientist and Head on KVK activities and briefed about the need and importance of skill training. He also stressed that the training will help to create a pool of skilled manpower for managing the allied enterprises in a scientific way. In this training programme the topics were covered on different aspects of processing and value addition like visits were arranged to Heggere Food Products, tuttyy-fruity, cashew processing unit and arecanut sheat plate making unit. The theory classes were arranged like jackfruit and banana powder value addition and labelling, vacuum packaging and marketing. The practical demonstration was arranged on BaKaHu value added products like Sweets and Spicy products and trainees also involved in preparation of different banana value added products and learnt about commercialization of the products.

coordinator gave insight about the skill training. Later the programme was inaugurated by Dr. K. S. Channabasappa, Dean, College of Forestry, Sirsi. In this inaugural speech, Value addition in agriculture is needed for the profitability of the farmers, to empower the rural youths, farm women and weaker sections of the society, to provide safe, quality and branded food to the consumers, to reduce post-harvest losses, reduction in import and increasing exports. He also encouraged the



## ICAR-KVK, VIJAYAPURA - I

### DIAGNOSTIC FIELD VISIT

Diagnostic field visit was conducted to onion twisting disease infected plot of Hadagali village of Vijayapura district on 23.02.2022. The farmer Shri. Suresh S. Rathod has grown around 2.4 acres of Panchaganga onion variety in his farm every year, He has cultivating and taking a yield of around 9 tones / acre but due to severe infestation of onion twisting from the last three years the yield was reduced and farmers are getting low yield for that the diagnostic field was conducted by Senior Scientist & Head, Dr.Shubha.S and Scientist (Plant pathology) Dr.Shivalingappa Hotkar and given suggestions for management of twisting disease.



## ICAR-KVK, VIJAYAPURA - II

### CAPACITY BUILDING OF FARMERS IN SCIENTIFIC POULTRY FARMING



Scientific poultry farming training was conducted at Krishi Vigyan Kendra, Indi from 14.02.2022 to 16.02.2022 under capacity building programme for the benefit of farmers. Dr. Bhimashankar Kannur, Assistant Director of Animal Husbandry, Indi inaugurated the programme and delivered lecture on importance of poultry farming in enhancing the income of farmers and further suggested the trainees to rear the improved varieties poultry bird like swarnadhara, Gramapriya, Vanaraja etc., Dr. Santosh Shinde, Scientist(Animal Science), KVK, Indi delivered different topics like breeds, breed selection, feeding management, disease management in broiler and egg laying birds etc., to the farmers during these days of training. The farmers were taken to the field of Sri Bhagesh Rugi, of Horti village, who is a successfully maintaining layer birds (BV-300) and he narrated his success pathway to the farmers. Nearly, 40 participants were benefitted by the programme.

### TRAINING ON REARING OF FISH IN STORAGE POND UNDER CAPACITY BUILDING PROGRAMME

Vijayapura district of Karnataka state has highest number of Krishi Hondas (nearly 10000) for storing the water and utilization of these water during scarcity for horticulture and agricultural crops. Further, to get additional income the farmers are promoted to rear fishes in these storage ponds. For which Krishi Vigyan Kendra, Indi has organized a training on rearing of fish in storage pond under Capacity building programme from 21.02.2022 to 23.02.2022. Dr. Vijayakumar S. Associate Professor and Head, Fisheries Information Research Centre (FIRC),



Bhutnal, Vijayapura inaugurated the programme and delivered lecture on different aspects of fish management like variety selection, feeding management, disease management etc., Dr. Santosh Shinde, Scientist (Animal Science), KVK, Indi delivered lecture on composite fish farming and advised the farmers to initiate fishery activity to get an additional income. The farmers were taken to the field of Sri Appu of Halasangi village who is a successfully managing the composite fish farming in his pond and he narrated his success pathway to the farmers. Nearly, 40 participants were benefitted by the programme.

## ICAR-KVK, ALAPPUZHA

### INTERNSHIP PROGRAMME TAKEN UP FOR B.SC (VOC) FOOD PROCESSING STUDENTS



Eight B.Sc (Voc) Food Processing students from Vimala College, Thrissur under Calicut University underwent internship programme on food processing for three months from 1st Dec, 21 to 28th Feb, 22 in the Agro-Processing Training cum Incubation Centre (APTIC) of the KVK. During this three months period the students were exposed to different aspects of processing of agricultural produce with hands-on-training and involved in the incubation activities having interaction with farmers and entrepreneurs. Each student has taken up a project work for three months related to food processing, carried out the same and made observations to derive inferences. The project topics included evaluation of Plantain and Banana based geriatric food, Evaluation of mushroom enriched macaroni, Evaluation of Nutri Pasta using plantain variety Charapooan, Evaluation of Nata-De-Coco enriched Fruit Juices, Evaluation of RTS from different plantain varieties, Ascertaining the jelly strength of different fruit rinds, Evaluation of cookies using plantain flour, and Evaluation of different storage methods for Chinese Potato. After completion of the project work, the students prepared the report for submission to their parent institution which is a partial fulfillment for the degree programme. The programme was coordinated by Smt. Jissy George, SMS (Home Science) with guidance from Dr. P.Muralidharan, Principal Scientist and Head, KVK. The students expressed great enthusiasm and satisfaction for the experience obtained in the real ground situation and interaction with the entrepreneurs.



## ICAR-KVK, ERNAKULAM

### OPEN PRECISION FARMING RESULTED BUMPER HARVEST OF SNAP MELON

The open precision farming of Snap melon demonstrated by KVK Ernakulam resulted bumper harvest where yield increase of 70 per cent recorded. The precision farming also improved appearance, overall quality and marketability of melons. The expenditure for fertilization reduced by 60 per cent as the nutrient supply was precisely to the root zone through micro irrigation. The plastic mulching prevented weed growth thereby the weeding cost could be saved. Low water requirement, less spillage of water and nutrients also contributed towards resource saving. The foliar fertilization resulted in extended harvest and enhanced general health of the plants. The KVK conducted a Field day to popularize the technology at Alangad on 24th February, 2022. Alangad Grama panchayath president Shri.P M Manaf inaugurated the field day and Dr.Shinoj Subramannian, Principal Scientist and Head presided over. Different ready to drink items like Snap melon juice, dessert, shake and diabetic special summer cooler were served to the visitors. Seeds of snap melon were also supplied. Shri. Shoji Joy Edison, Subject Matter Specialist (Horticulture) explained Precision farming technology. Smt.P Sreeletha, Subject Matter Specialist (Home Science) demonstrated various Snap melon products.



### TRAINING PROGRAMME ON SCIENTIFIC GOAT REARING CONDUCTED

The ICAR-KVK Ernakulam conducted three days training programme Scientific goat rearing during 25.02.2022 to 27.02.2022 at Varappetty in Ernakulam district. The programme was funded by Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India under the project Capacity Building of farmers through training programmes on Profitable Dairy Farming and Livestock Management. The training was inaugurated by Varappetty Service Cooperative bank President, Shri M G. Ramakrishnan. KVK Subject Matter Specialist (Animal husbandry) Dr. K. Smita Sivadasan led the sessions that covered scientific practices in brood stock selection, housing, feeding, breeding management, common diseases, vaccinations, bio-security measures and marketing of products. Field visits and interaction with progressive goat farmers was also part of the training.



## ICAR-KVK, IDUKKI

### KVK IDUKKI CONDUCT TRIALS ON NANO UREA AND NANO DAP IN ASSOCIATION WITH IFFCO

Field Trial was conducted on Nano Urea and Nano DAP by ICAR, Krishi Vigyan Kendra, Idukki in association with IFFCO, Kerala in farmer's field at Vandenmedu village. The trials included three plots in two different crops. Trial in small cardamom with Nano DAP includes Treatment-1- Farmers practice (Recommended DAP application-100 %), Treatment-2- Recommended DAP (50%) + Nano Dap application (50%), Treatment-3 – Nano DAP (100%). The Trial was repeated in another plot with Nano Urea. Nano DAP and



Nano Urea trial was conducted also in vegetable cowpea. Adoption of Nano Technology Trial in farmer's field made them aware on the importance of the technology. The farmers were explained on the different deficiencies in the crops and their recommendations using different Nano Fertilizers which is easy to use and cost effective for farmers. The farmers were made aware on the importance of micronutrients, its deficiencies and recommendations. The farmers were made aware on importance of Nano Fertilizers to increase the productivity. The farmers were made aware on the technology by demonstration in the field on mixing and spraying of Nano fertilizers.



## ICAR-KVK, KANNUR

### NUTRI GARDEN SCHEME

The nutri garden scheme of KVK Kannur was implemented in Kadanapally panchayat with the aim of meeting a family's complete nutritional requirements through the introduction of food crops in the homesteads. Twenty-five households in the panchayat were identified as the beneficiaries of the scheme and each household were given vegetable seedlings, fruit plants, tubers, were given vegetable seedlings, fruit plants, tubers, spice crops, bio inputs and mushroom spawn. The programme was inaugurated on 22/02/22 by the Panchayat President Smt. Sulaja in the presence of ward member Smt. Shyna and Agriculture officer Sri. Jithin. The inputs were distributed as well as training on cultivation aspects and use of bio inputs were given to the beneficiaries.



### CAPACITY BUILDING PROGRAMME ON PROFITABLE POULTRY FARMING

KVK Kannur has conducted three day training programme on profitable poultry farming from February 24-26, 2022 under capacity development programme on livestock management. Sessions on broiler farming, quail farming, layer farming and poultry diseases were handled by Dr. Anilkumar A. D., LMTC, Kannur, Dr. Ambili John, Assitant Professor, KVK, Dr.Sujan, Retd.Veterinary Surgeon, Dr. Abdul Muneer, Assistant Professor, respectively. Forty farmers from various part of the district attended the capacity building programme.



## ICAR-KVK, KASARAGOD

### AMRUTHAM NUTRIMIX PROJECT BAGS INTERNATIONAL AWARD

Amrutham Nutrimix project By Kudumbashree, Kerala bagged the International award 'Glenmark Nutrition Awards 2022' by the Glenmark Foundation in collaboration with U N World Food programme. The recognition comprising of rupees one lakh cash award and certificate was received by Kudumbashree during the award function as part of Rice World Summit on 5th February 2022. The award is on account of the health and nutrition benefits the project could impart to more than 5 lakhs children in Kerala state through Anganwadis. It is a proud moment for ICAR KVK, Kasaragod since the product Amrutham Nutrimix, a low-cost



supplementary food for children was developed by at ICAR KVK, Kasaragod in the year 2007 towards eliminating hunger and malnutrition in the rural infants and ensuring income generation and social uplifting of rural women. Dr Neelofar Illiaskutty, CTO, KVK Kasaragod had developed the product and the technology was transferred to Kudumbashree units through training programmes. After several years of research, Amrutham Nutrimix was taken up by several Kudumbashree enterprises for production and distribution in the state. Organoleptic tests, consumer preference tests, etc. were conducted among Anganwadi children, teachers, public health centers and Self-help groups (SHGs). The product was well accepted. Anthropometric measurement of the children of Anganwadi was carried out with the help of doctors in PHC. There was an improvement in the health status of children after

consuming Nutrimix daily for six months. Since 2007, ICAR KVK, Kasaragod had been training Kudumbashree SSI unit members from all over Kerala state at ICAR KVK, Kasaragod and from 2015 onwards, trainings on Preparation of value added products from Amrutham Nutrimix like Pedas, cookies, biscuits, etc. are also being imparted. The product was also taken up under FLD and OFT programmes of ICAR KVK, Kasaragod. The solution to location-specific problems was done through the process of assessment and refinement of technologies on topics "Comparative study of Supplementary foods among Anganwadi children", "Enhancement of Palatability of Nutrimix" in 2012-13, Fortification of Amrutham nutrimix with micronutrient rich coconut sugar in 2017, and demonstration on different types "Value-added products from Nutrimix. Amrutham Nurtrimix was prepared with locally available grains mostly wheat, groundnut, Bengalgram dal, soya chunks, sugar and drumstick leaves which provide 358 Kcal of energy and 15 gms of proteins per 100 g of the product. It is also rich in nutrients like iron, calcium, riboflavin, thymine, crude fibres and niacin. The product was analyzed for shelf life, microbial loads and nutritional quality at physiology and microbial lab at CPCRI, Kasaragod. Initially, the process was done at the domestic level by roasting the grains on firewood in large vessels and milled to powder by nearby local mills. Now machines like roaster, pulveriser, mixer, sieve and electrical sealing machines for packaging the products are being used.



A major impact is the formulation and demonstration of supplementary food for Adolescent girls “Kumari plus” in Kollam, Idukki, Palakkad and Malapuram districts of Kerala under the Pilot Project of Government scheme (SABLA), by which almost 50 percent of adolescent girls benefitted. Another significant impact is that 241 units are working today all over Kerala and 1584 women are employed with an income of Rs. 5000-6000 per month. Annually 18000 MT Amrutham nutrimix is being produced and 5.5 lakh children are getting benefitted. In Kasaragod district alone, 15 units are operating with a production of 35 tonnes per month. Malappuram district peaks with 53 units producing 200 tonnes per month. Delegates from Sri Lanka, South Africa and other states of India visited to study the success of these enterprises.



## ICAR-KVK, KOTTAYAM

### INAUGURATION OF NUTRI-GARDEN PROGRAMME AND AGRICULTURAL INPUTS KITS DISTRIBUTION TO AKC FARMERS, MADAPPALLY

Nutri-Garden Programme of Krishi Vigyan Kendra, Kottayam was conducted at Krishi Bhavan, Thrikodithaanam, on 17th February, 2022. Agricultural inputs kit distribution to the farmers under ‘Subhiksha Keralam’ Programme of Government of Kerala in convergence with



Agriculture Knowledge Centre, Madapally was also conducted on the same day at Krishi Bhavan. Nutri-garden programme is meant for ensuring the family nutrition security through the scientific cultivation of different types of fruits and vegetables in households. Programme Co-ordinator, KVK-Kottayam welcomed the gathering and gave the detailed description about the Programme. Smt. Suvarna Kumari, Panchayat President, Trikodithanam, presided over the function. Changanassery MLA Adv. Job Michael

inaugurated the function. Smt. Aneena, Assistant Director of Agriculture, Madappally, Smt. Rasiya, Agriculture Officer, Thrikodithaanam, Panchayat Members, Scientists from KVK and farmers attended the programme. Dr. Jayalekshmi (Programme Co-ordinator, KVK Kottayam) and Dr. Jisha A Prabha (Assistant Professor, Home Science) handled sessions on cultivation aspects of Nutri-garden and importance of Nutri-garden for family nutrition security respectively. Planting materials of fruit trees, green leafy vegetables, roots and tubers, other vegetables and other inputs like Trichoderma, pseudomonas, fish amino acid, neem-garlic soap, Azospirillum etc were distributed to 25 households. Around 40 farmers attended the programme. The programme aimed at ensuring self-sufficiency in fruits and vegetables in rural households.



## ICAR-KVK, MALAPPURAM

### PRACTICAL TRAINING ON MANAGEMENT OF MEAT PRODUCING ANIMALS

Conducted three days capacity development programme on scientific rearing of meat producing animals such as buffaloes, bull calves and rabbits from 22/2/2022 to 24/2/2022. Purchasing buffalo male calves and marketing after two years of fattening is a recent trend adopted by many farmers. Hence the training was intended to promote scientific management and more entrepreneurship in the field of meat production. Scientific management of rabbits was also covered in detail. A field visit was conducted to a buffalo farm actively involved in importing buffalo calves from nearby states, rearing, and trading of meat buffaloes. Besides discussing the purchase, management and marketing tips, hands on practical sessions were also conducted at the farm on various aspects of selection, health assessment, first aid and determination of age, body weight and meat value of buffaloes and so on.



### FERTILIZER DEALERS TRAINED ON INM

Three days capacity development programme on integrated nutrient management was conducted for fertilizer dealers from 16/2/2022 to 18/2/2022. The six sessions covered various topics such as soil sampling & analysis, soil test based fertilizer application, interpretation soil fertility card, in situ organic input production, composting technologies like vermicomposting, coir pith composting, Trichoderma enrichment, and use of biofertilizers. Seventeen participants attended the programme.



## CERTIFICATE COURSE ON INSECTICIDE MANAGEMENT FOR INSECTIDE DEALERS /DISTRIBUTORS

Pesticides are important inputs used in agriculture and mostly, the farmers depending on pesticide Dealers/Retailers for the information related to pesticides and Pest Management. Hence it is essential to ensure and upgrade their knowledge of pest control and Insecticide management. With this aim 12 days certificate course on insecticide management was conducted in collaboration with NIPHM, Hyderabad. Three days practical sessions at KVK Malappuram from 24.02.2022 to 26.02.2022 included sessions on, identification of pest and disease symptoms, weeds, different traps, application of pesticides, mass production techniques of bio control agents etc.



On third day, an exposure visit to various stations of Kerala Agricultural University, viz., Bio control lab of AICRP on Bio control of crop pests, department of Pathology and Agricultural Entomology, College of Agriculture, Vellanikkara, Pesticide residue analysis lab, also was organized.



## DIRECTOR ATARI VISITS KVK

The Director ATARI visited the KVK on 24th February . Besides activities at KVK. he visited the betelvine fields of Tirur having GI status and offered suggestions for empowering the farmer network with technology back-stopping . He also visited the model IFS run by a woman entrepreneur Ms. Sushama . As per his direction Ms. Sushama later presented her success on IFS and farm level value addition in a national level webinar organized by KVK lakshadeep .



## KVK TECHNOLOGY WEEK “KATHIR 2022”

In order to showcase technologies for various cropping systems and enterprises the KVK is organizing a technology week from 28.2.22 to 4.3.22 at Thavanur. The technology week Kathir 22 was inaugurated by Hon. Minister for sports Sri. V. Abdul Rahiman on 28.2.22. Dr.K.T. Jaleel, Hon. MLA presided over the function. Polymer coated vegetable seeds initiated by the KVK was released by the minister. The break through initiative of the KVK - liquid pseudomonas production unit and seed processing unit of the KVK were also inaugurated during the occasion. Dr. A.Sakkeer Hussain, registrar of KAU distributed the nutrition garden kit for JLGs and SCSP vegetable kit was distributed by Dr. Jayasree Krishnan Kutty, the Director of Extension, KAU. The KVK has launched a farmer innovation museum as a platform for stakeholders to meet on innovation scaling up and for fostering lateral learning. The museum was formally inaugurated by Hon.MLA Dr. K.T. Jaleel.



## ICAR-KVK, PALAKKAD

### CONVOCATION CEREMONY OF FIRST BATCH DAESI PALAKKAD

Convocation for the first batch of 40 input dealers of Diploma in Agricultural Extension Service for Input Dealers (DAESI) was held at District Panchayat Hall Palakkad. The scheme is a year long programme consisting of 40 theory classes and 8 field visits which aims to build their technical competency in agriculture and to facilitate them to serve the farmers better and also to act as para- extension professionals. Honorable Member of Parliament Palakkad, Sri. V. K Sreekandan distributed the graduation certificate for the trainees. The function was presided by District Panchayath Vice President Sri. C.K Chammunni. Officials from KVK Palakkad, ATMA Palakkad, and Agricultural Department participated in the programme. The programme also witnessed the inauguration of 2nd Batch of DAESI programme.

### INAUGURATION OF DEMONSTRATION UNITS

Different demonstration units are set ready at Krishi Vigyan Kendra Palakkad. Inauguration of units were done by Dr. V. Venkatasubramanian, Director ICAR-ATARI Bengaluru, during the Scientific Advisory Committee Meeting held on 23.02.2022. Units include Miyawaki forest model, Vet Park, Gardeners' Hub and Mushroom Spawn Production Unit. Miyawaki forest is a man made forest made in 2.5 cents of land at KVK premises under the project funded by DOECC. Forest is made with indigenous trees and fruit crops. Vet Park is constructed under the state planning board funded project. The park is to showcase the demonstration units of Model goatery, Protected Enclosure for Free Ranging (PEFR) Coop model poultry unit, Duck house and Rabbit hutch. Gardener's Hub includes vertical structures and wick irrigation models for developing agri-service providers in the field of roof top gardening. Spawn production unit funded by state planning board ensures quality mushroom spawn to consumers.



## ICAR-KVK, PATHANAMTHITTA

### USE OF DRONE FOR PRECISION SPRAYING AND MITIGATION OF LABOUR SHORTAGE IN PADDY FIELDS

In order to showcase the use of drone for precision spraying and mitigation of labour shortage, Unmanned Aerial Vehicle (UAV) based demonstration of application of micro nutrient (Sampoorna) for rice cultivation was conducted at Chathangeri Padasekharam in Peringara Grama Panchayat situated in Upper Kuttanad area in 40 acres in collaboration with Peringara grama panchayat and Krishi Bhavan, Peringara . The



demonstration has been aimed at sensitizing the farming community to achieve maximum yield for limited area and how to overcome the labour shortage problem.

Sampoorna Multimix, a nutrient mixture released by the Kerala Agricultural University is been used to resolve the soil micronutrient deficiencies. Applying the micronutrients directly on the leaves helps to increase the yield and strengthen the disease resistance of crops. Drone based spraying of micronutrients directly on the crops helps to save

time and labour costs for farmers in large fields. Uniform application of micronutrient in 40 acres of land required only 5 hours. Thus the technology is found to be very efficient, drudgery free and could reduce the cost of cultivation as well as the man-days and time required. Peringara Grama Panchayat President Shri. Mathen Joseph inaugurated the programme and Dr. C. P. Robert, Senior Scientist and Head ,ICAR- KVK, Pathanamthitta was the keynote speaker at the event.



ജില്ലാ കൃഷി വിജ്ഞാന കേന്ദ്രത്തിന്റെ നേതൃത്വത്തിൽ പാതാമുരരി പാടത്ത് ഡ്രോൺ ഉപയോഗിച്ച് വള പ്രയോഗം നടത്തുന്നു.

#### ഡ്രോൺ ഉപയോഗിച്ച് നെൽക്കൃഷിയിൽ വളപ്രയോഗം: പ്രവർത്തനം നടത്തി

പെരിങ്ങാ • ജില്ലാ കൃഷി വിജ്ഞാന കേന്ദ്രത്തിന്റെയും കൃഷി ബോർഡിന്റെയും നേതൃത്വത്തിൽ ഡ്രോൺ ഉപയോഗിച്ച് നെൽക്കൃഷിയിൽ വളപ്രയോഗം നടത്തുന്നതിന്റെ മുൻനിര പ്രദർശനം നടത്തി. പാതാമുരരി പാടശേഖരത്തിൽ പഞ്ചായത്ത് പ്രസിഡന്റ് മാത്തൻ മേനോൻ ഉദ്ഘാടനം നിർവഹിച്ചു. മണ്ണിന്റെ സൂക്ഷ്മ മൂലകങ്ങളുടെ അപര്യാപ്തത നിരീക്ഷണത്തിന് കേരള കാർഷിക സർവകലാശാലയുടെ സമ്പൂർണ്ണാ മൾട്ടിമിക്സ് എന്ന പോഷകമിശ്രിതമാണ് പാടശേഖരത്തിൽ ഡ്രോൺ ഉപയോഗിച്ച് പ്രയോഗിച്ചത്. നെൽപ്പടികളുടെ ഇലകളിലേക്ക് സൂക്ഷ്മ മൂലകങ്ങൾ നേരിട്ട് നൽകുന്നതാണ് രീതി. കൈച്ചയിൽ നിന്നെത്തിച്ച ഡ്രോണാണ് വളപ്രയോഗത്തിന് ഉപയോഗിച്ചത്. ഒരേക്കിരട്ടി വള പ്രയോഗം നടത്തുന്നതിന് 8 മിനിറ്റ് മാത്രംകൂടും. ഒരു കിലോ സമ്പൂർണ്ണ മൾട്ടിമിക്സ് 9 ലിറ്റർ വെള്ളത്തിൽ കലക്കിയാണ് തളിക്കുന്നത്. എല്ലാ പെടികൾക്കും ഒരേ പോലെ വളം ലഭിക്കും. 700 രൂപയാണ് ഒരേക്കിരട്ടി ചെയ്യുന്നതിനുള്ള ചെലവ്. നെൽപ്പടികൾക്ക് സാധാരണ 3 പ്രാവശ്യമാണ് കർഷകർ വളം നൽകുന്നത്. സൂക്ഷ്മ മൂലകങ്ങൾ നൽകുന്നതിലൂടെ ഇത് ഒരൊറ്റി കുറയ്ക്കാം. പെടികൾക്ക് രോഗപ്രതിരോധ ശേഷി കൂടുതൽ ലഭിക്കുകയും കൈയ്യുന്ന സമയത്ത് പതിവു കുറഞ്ഞിരിക്കുകയും നെൽമണികൾക്ക് തൃക്കും കൂടുതൽ കിട്ടുകയും ചെയ്യുന്നതാണ് സൂക്ഷ്മമൂലകങ്ങൾ നൽകുന്നതിലൂടെ ലഭിക്കുകയാണ് കൃഷി വിജ്ഞാന കേന്ദ്രം ഡോ വി ഡോ.സി.പി.രോബർട്ട് പറഞ്ഞു. വിളവ് 10ശതമാനം എങ്കിലും അധികം ലഭിക്കുകയും ചെയ്യും. സാധാരണ വളപ്രയോഗം മണ്ണിലേക്കാണ് ഇടുന്നത്. ഇങ്ങനെ ഇടുന്നതിൽ പകുതി മാത്രമേ പെടികളുടെ നേതൃകൾ വലിപ്പമുള്ള കൂട്ടുകളുള്ള ഡ്രോൺ ഉപയോഗിച്ച് വളപ്രയോഗം നടത്തിയാൽ 100 ശതമാനം പ്രയോജനം ലഭിക്കും. കിടനാശിനി തളിക്കുന്നതിനും ഡ്രോൺ പ്രയോഗിച്ചെടുക്കുന്നതിനും കർഷകരുടെ ഇടപാടാണ് പെരിങ്ങാ ഗ്രാമപഞ്ചായത്ത് വരുമാനം കൂട്ടാനും കഴിയുമെന്ന് പാതാമുരരി പാടശേഖര സമിതി പ്രസിഡന്റ് സാം. ഇറപ്പൻ പറഞ്ഞു. ഒരു കുറ്റി മരുന്ന് അടിക്കുന്നതിന് 100 രൂപയാണ് ചെലവ്. ഒരേക്കിരട്ടി 10 കുറ്റിമരുന്ന് തളിക്കുന്നതിനും തളിക്കുന്നതിനും അപകടകരമായാണ്. 4 വർഷം മുൻപ് പെരിങ്ങാമുരരി കിടനാശിനി തളിക്കുന്നതിനാൽ തൊഴിലാളികൾക്കുണ്ടായിരുന്ന അപകടകരമായ ഡ്രോണുകൾ ഒഴുക്കുന്നതിനുള്ള നടപടികളാണ് ആവശ്യമെന്ന് കർഷകർ പറഞ്ഞു.

### ODOP TRAINING ON JACKFRUIT AS PART OF PMFME SCHEME, GOVT. OF INDIA

As part of PMFME scheme, Govt. of India (Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme), KVK, Pathanamthitta conducted 3 days training of Beneficiaries programme for Pathanamthitta district from 21st to 23rd February 2022 with an aim to make the entrepreneurs move forward and initiate entrepreneurial ventures in Value Addition of Jackfruit. The scheme adopts the One District One Product (ODOP) approach to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products. As per the ODOP Programme, ODOP crop for the Pathanamthitta district is jackfruit. The training programme was attended by 15 stakeholders of PMFME- ODOP scheme.





The entrepreneurs were given awareness on topics viz. Introduction to PMFME scheme by ODOP, Plant layout and maintenance, packaging of fruits and vegetable product, Equipment and specifications of machinery in fruits and vegetable processing of machineries, Value Addition of jackfruit in addition to food safety regulations and certifications, Marketing and branding, DPR

essentials for microenterprises and legal compliances for business. District level trainers of PMFME Scheme in the district, Dr. Shana Harshan, Dr. Sindhu Sadanandan and Ms. Gipty Mohan lead the training sessions. As part of the programme, stakeholders also reaped the benefit of State Resource Centre for Jackfruit functioning at KVK.

## ICAR-KVK, TRIVENDRUM

### WASTE MANAGEMENT FOR MUSHROOM GROWERS WITH SAFE TO EAT VEGETABLE CULTIVATION IN GROW BAGS USING SPENT MUSHROOM SUBSTRATE - THE ICAR MITRANIKETAN KVK MODEL



The rising population at an alarming rate has resulted in the reduction of arable land, and there is no possibility of increasing additional area for cultivation. There is hardly any scope for horizontal expansion of land for food, feed and fiber production. Therefore, to feed the people with proper nutrient and quality food the vertical expansion, farming by integrating appropriate farming component would be the alternate way to challenge the needs of food.

One of the components of agriculture is mushroom cultivation. The spent waste left after harvesting mushroom crop create a nuisance in the environment but several studies have shown that these spent has potential use in the different farming system as soil conditioners to grow crops, vegetable, and grains to yield good production. Spent mushroom substrate is the soil-like material remaining after a crop of mushroom. Spent substrate is high in organic matter making it desirable for use as a soil amendment or soil conditioner.

## WHY MUSHROOM SPENT WASTE SHOULD BE RECYCLED?



If it is thrown as such, it creates nuisance, supports the multiplication of undesired insect-pests and emits out foul smell and the leachate from it causes pollution problem to ground water and the water bodies. This has been an important problem reported by the mushroom growers trained by KVK.

Keeping in view of the above aspects, a trial was conducted for evaluating the effect of spent mushroom substrate from oyster mushroom on the growth

of leafy vegetables. For this spent mushroom fermented for 40 days and thereafter the composted media was sundried. Here 75% spent mushroom compost + 25% cow manure mixed with dried leaves were filled in grow bags. 50 grams of Trichoderma enriched with neem cake- coddung mixture also applied to each grow bag before 2 days of transplanting. Amaranthus seedlings were transplanted and watered 1-2 times a day or as needed. Plant height and total leaves were evaluated every week until harvesting time (35 days). The material will hold the water in the media while the plants grow. This manure has found to enhance the yield and quality of the produce. It has also been observed that the incidence of leaf blight disease is meagre as well as low incidence of weeds and pests. Since last two years this soil less cultivation is demonstrated for farmers in our KVK. Amaranthus grown in this media has deep and attractive color, luxuriant growth, less fibrous stalk and good gustatory characters. The results revealed that there is significant increase in growth parameters like number of leaves, length of leaves and diameter of leaves. Plant growth is vigorous. Root growth is also proliferous compared to the plants grown in normal potting mixture. The farmers and mushroom growers' society under the guidance of our KVK have started adopting this method and this has also become a part of the regular training programme on mushroom cultivation.

## ICAR-KVK, THRISSUR

### KVK, THRISSUR HELPS FARMERS TO BECOME ENTREPRENEURS

Krishi Vigyan Kendra, Thrissur, through the use of KAU-Keradhara coconut milk extractor technology, helped Mrs. Anila, a farmer in the Kunnamkulam taluk of Thrissur district, to turn into an entrepreneur. The technology reduces drudgery and increases efficiency of coconut milk extraction, with a hygienic end product. This technology dissemination paved way for Mrs. Anila to commercialize her home scale production of virgin coconut oil. Her product known by trade name "Ayur Kera", was launched during the XX Scientific Advisory Committee Meeting of the Krishi Vigyan Kendra, Thrissur conducted on 17th February 2022 in the presence of Dr. Jayasree Krishnankutty, Director of Extension, Kerala Agricultural University and Dr. M.J Chandre Gowda, Principal Scientist, ATARI, Bengaluru.



The meeting also staged the inauguration of "Ruchika" food products, an initiative of the tribal women's collective of Tamaravellachal Tribal colony in Peechi forest area. The technological backstopping for the women's collective in value addition of their indigenous forest produce is provided by Krishi Vigyan Kendra, Thrissur.

## ICAR-KVK, WAYANAD

### ICAR KVK WAYANAD -CONDUCTED ODOP PMFME TRAINING

KVK Wayanad conducted ODOP PMFME training at KVK Wayanad on 24,25,26 February 2022. Various topics on milk processing, value added products, packaging, machineries, food safety aspects were dealt on different sessions during the training. Three EDP sessions on marketing, branding, legal compliances, product development, bank credit.



Classes were handled by Dr. Safia N.E, Programme Coordinator, KVK Wayanad. Also two sessions on PMFME scheme guidelines, Agri Business Incubator role etc were given to 10 registered trainees. Financial literacy class was handled by Lead Bank, Kalpetta for 35 farmers.

### FIELD VISIT FOR SELECTING SITES FOR NICRA PROJECT

Dr. Sreenivas Reddy, Scientist, ATARI, Dr. Jayaraj. P, Programme Coordinator, KVK, Kannur along all the scientists of KVK Wayanad made field visit to Padichira, Kabinigiri and Kolavally villages in Mullankolly panchayat for identifying drought affected areas of Wayanad. Dr. Safia N.E, Programme Coordinator, KVK Wayanad described about the importance of the project to the farmers. A discussion with officials of soil conservation office, soil survey, Agricultural department along with panchayat president and progressive farmers were made to find out required strategies to save crops suffering from climate extremities. Methods for conserving ground water and rain water were also discussed. Farmers revealed their difficulties in cultivating crops due to water scarcity prevailing in these areas.





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