





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











ICAR-Agricultural Technology Application Research Institute Zone XI, Bengaluru University of Agricultural Sciences, Raichur

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#### **UNIVERSITY OF AGRICULTURAL SCIENCES**

Lingsugur Road, Raichur-584 104. Karnataka State. India

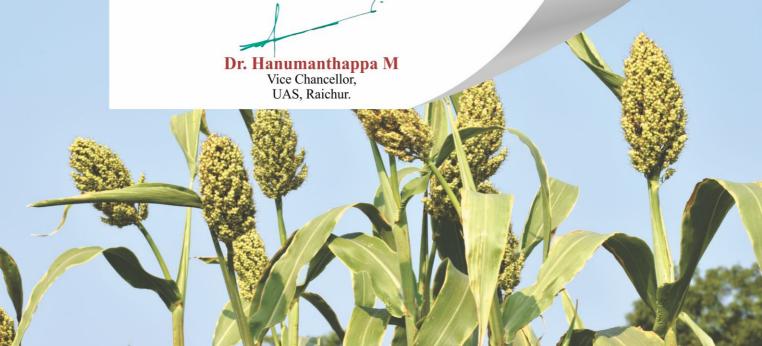
#### **FOREWORD**

I am gratified to learn that ATARI, Bengaluru has successfully completed its first volume of "KVK TIMES" and stepped into second volume of "KVK TIMES," a journey celebrating the relentless spirit of our farming community and the yeomen service of the team Krishi Vigyan Kendras (KVKs) across the zone. This publication is a testament to their dedication for driving agricultural advancement. This edition showcases the exceptional contributions of 48 KVKs. It's a platform for KVKs to compile their finest news items, spotlighting their innovative work a ross the zone.

In today's globalized world, the professionalization of farming is a necessity. This calls for a proportional number of field functionaries, with the DFI committee recommending a ratio of 1:750 field functionaries to farmers. KVKs have emerged as knowledge hubs, serving farmers, extension functionaries, entrepreneurs, and other stakeholders invested in our region's agricultural progress. The impact of KVKs on agrarian development is remarkable. Many KVKs have received national, zonal and state awards for their unwavering efforts to reach marginalized farmers, embodying the essence of inclusive growth.

My gratitude extends to Dr. V. Venkatasubramanian, Director of ICAR-ATARI, Bengaluru, for his unwavering support in bringing this volume to life. His guidance has been pivotal in making this endeavor a success. The collaborative efforts of ATARI, the Directorate of Extension, and ICAR-KVK, Ballari, are truly commendable. As we proudly present the III issue, II volume of "KVK TIMES," I congratulate the entire ICAR-KVK, Ballari team for their exceptional compilation of progress and tireless dedication.

As Vice Chancellor of UAS Raichur, I'm inspired by the strides we've aken in advancing our agricultural landscape. This volume pays homage to the farming community and the KVKs, whose stories of progress and innovation grace these pages. With gratitude and excitement, I invite you to explore the narratives of growth, transformation and empowerment withing the pages of "KVK TIMES". TIMES".





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#### UNIVERSITY OF AGRICULTURAL SCIENCES

# Lingsugur Road, Raichur-584 104. Karnataka State. India MESSAGE

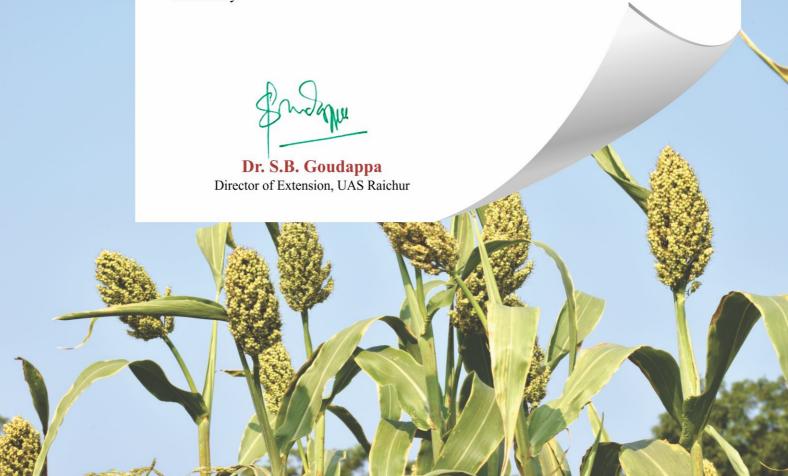
'KVK Times' is vital to disseminate evidence for practice, communicate its knowledge, share advisory initiatives and technological innovations, success stories with various stakeholders of KVKs to influence the process of technology transfer.

The collective effort of KVKs helped the stakeholders to adopt production recommendations which led to enhance their income and socio-economic status in the society. The team efforts of KVK, Ballari to raise awareness about health benefits of millets, mushroom and arid fruits like fig in the dietary plan of the people in its judiction are highly appreciable. The promotion of Direct Seeded Rice, IPM technologies in chilli, cotton & groundnut, popularization of bengalgram variety BGD-103 & foxtail millet Hagari Navane-46, INM in maize and groundnut, stallfed kenguri sheep rearing units are the most sizeable activities of the team KVK Ballari.

I am immensely grateful for the persistent support that ATARI, Bengaluru has provided to all the KVKs of Zone-XI in flaunting their activities in all the platforms.

"KVK Times" is a great initiative which serves as ready reference for accessing important milestones achieved in the zone and it will help to stay up-to-date about on-going activities of all the KVKs.

I acclaim the team of ICAR- KVK, Ballari for the compilation and editing the August, 2023 issue of KVK Times. They have done a great job of covering major events, achievements and activities of Zone -XI, KVKs and their work will be of great benefits to the farming community.





## Agricultural Technology Application Research Institute (ICAR-ATARI)

Zone-XI, MRS, H.A. Farm Post, Hebbal, Bengaluru - 560 024.

#### **MESSAGE**

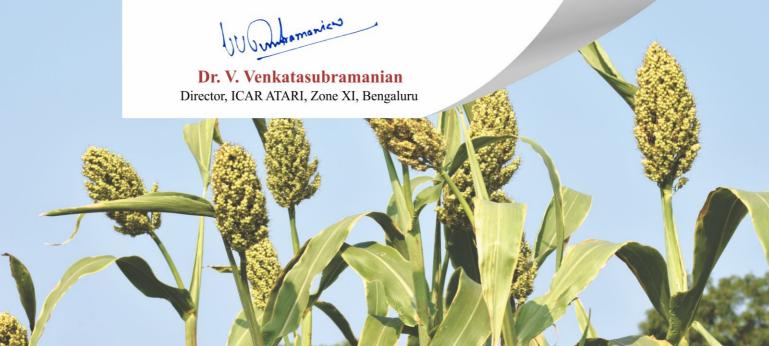
We've wrapped up the first volume of KVK TIMES with a bang, and we're off to a flying start with volume two! The overwhelming response from across the country has inspired us to keep this amazing journey going.

KVKs are the beating hearts of rural India, pumping information, knowledge, and technology into the bloodstream of the agricultural sector. Through effective partnerships, they ensure that these life-giving fluids reach every corner of the country, nourishing farmers and entrepreneurs alike.

KVKs have been on a roll in the past four months, showcasing their impressive work in different forums and programs. Their efforts have been so impressive that even the Honourable Secretary DARE and Director General, Dr. Himanshu Pathak, expressed his happiness towards ATARI, Zone XI during his recent visit to UAS, Raichur. I would like to join him in congratulating each and every KVK for their excellent work in bringing laurels to the ATARI.

I am deeply grateful to Dr. Hanumanthappa M, Hon'ble Vice-Chancellor, and Dr. S B Goudappa, Director of Extension, UAS, Raichur, for their support and guidance in strengthening the KVKs of UAS, Raichur. Their leadership and vision have been instrumental in the success of the KVKs, and I am confident that they will continue to lead the KVKs to even greater heights in the future.

I also want to appreciate and congratulate the team at KVK Ballari for bringing out the 3rd issue, second volume of KVK TIMES. This publication is a valuable resource for farmers and other stakeholders in the agricultural sector, and I am confident that it will continue to be a valuable tool for disseminating information and knowledge about agricultural technologies.









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ICAR-Krishi Vigyan Kendra, Hagari, Ballari.

Anantapur Raod, PD Halli Post, Hagari Farm - 583 111.



## Acknowledgment

I express my sincere gratitude to Hon'ble Vice Chancellor of the University of Agricultural Sciences, Raichur Dr. Hanumanthappa M for his valuable guidance and invincible support for carrying out extention activities of ICAR-KVK, Ballari for the benefit of farming community.

I would like to convey my heartfelt gratitude to Dr. V. Venkatasubramanian. Director, ICAR-ATARI, Bengaluru for his tremendous support, constant enthusiasm and concern showed at every stage of compilation to bring out "KVK TIMES" for the benefit of scientific and farming community. It is essentially a cross learning experience that helps each KVK to fine tune their activities.

I wish to place on record, my deepest sense of gratitude to our Director of Extension, Dr. S.B. Goudappa for his constant encouragement and moral support that has helped KVK, Ballari to serve farming community better.

I also extend my sincere gratitude to Dr. A.R. Kurubar, Associate Director of Extension for his overwhelming support and motivation that has inspired us to work more efficiently and focussed.

I would also like to thank Dr. Thimmappa K., Principle Scientist, ATARI and Nodal officer of KVK, Ballari for his valuable guidance and encouragement. I also thank all the other staff of ATARI Bengaluru and Directorate of Extension, UAS, Raichur especially Dr. Raghavendra B.T. and Dr. Hadimani for their timely help in carrying out our work.

I am delighted by the Zone XI-KVK family's enthusiastic response to sharing spectrum of their activities which in itself show the ability of KVKs to shoulder the varied responsibilities.

Last but not the least; I thank my entire team of KVK, Ballari for their support and whole hearted co-operation and involvement in each and every activity of KVK, I feel fortunate to be part of this team. I also extend my gratitude to Dr. Ramesh .B.K., Professor (Animal Science) for his constant support and guidance in bringing out this compilation. My sincere thanks to Mr. Mruthyunjaya Babu of G.C.Graphics, Ballari for timely design of newsletter and Mr. Suresh Babu for his efforts in designing the cover page and compiling the news items elegantly.

Date: 19-08-2023

Place: Ballari

Dr. GOVINDAPPA M.R.

Senior Scientist and Head, ICAR-KVK, Hagari, Ballari

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#### KVK trainee wins state award



KVK-Alappuzha is proud to share that Sri. Mujeeb A. Pulliyil, Karunagappilly who received the best farmer award-2023 of the Govt. of Kerala for value addition of agricultural produces, is a trainee and close associate of the KVK for the last three years. Returned from Gulf after the COVID lock down in 2020, he approached KVK-APTIC for technical advice for the processing of Jackfruit available in his homestead. Based on the advice given, he started drying jackfruit in many lots using the machineries of the KVK-APTIC. Around 200 kg Jackfruit powder produced in the first year in the brand name "Kachoos food products" was sold in a short period of time. Meanwhile he attended three days training at the KVK and learned the preparation of many other products of jackfruit. He started producing Jackfruit pulp based products which also had good market. With the confidence earned and to expand the activities, he purchased a multi-purpose dryer and 5000 kg dried jackfruit was prepared in that season. KVK also linked him to several exporters and marketing channels to sell the products. Pulp based products like jam, concentrate, and squash and seed based products like chutney powder, seed powder based traditional wafers were prepared using the facilities of the APTIC, and in his own unit. Mean while Smt. Jissy George, SMS, KVK published an article in a leading agricultural magazine in Malayalam, and Asianet, a leading TV news channel covered his enterprise based on recommendation of the KVK, all of which gave a good coverage about his enterprise to different parts of the world. He is now preparing more than 30 marketable jackfruit products and engaging nearly 40 women for the processing and value addition activities. He collects jackfruit from Kanyakumari of Tamil Nadu to Idukki districts of Kerala, thus supporting the farmers of five districts. Even in the lean season of jackfruit, he is running the unit with stored jackfruit and pulp and marketing the products in Gulf countries also. He will receive the award in a state level function on Karashakadinam (Farmers' Day) to be held on 17th August, 23 by the Govt. of Kerala.



#### Seed production plot visit of Greengram:





Field visit to Benakatti village for seed production plot of Greengram fields in collaboration with Karnataka State Seed and Organic Certification Agency (KSSOCA), Bagalkote officials and KVK Bagalkote Scientists Dr. Sudha S, Scientist (Plant Pathology) and Mr. Basavaraj Naglikar, SMS (Agro metrology) on 02.08.2023.

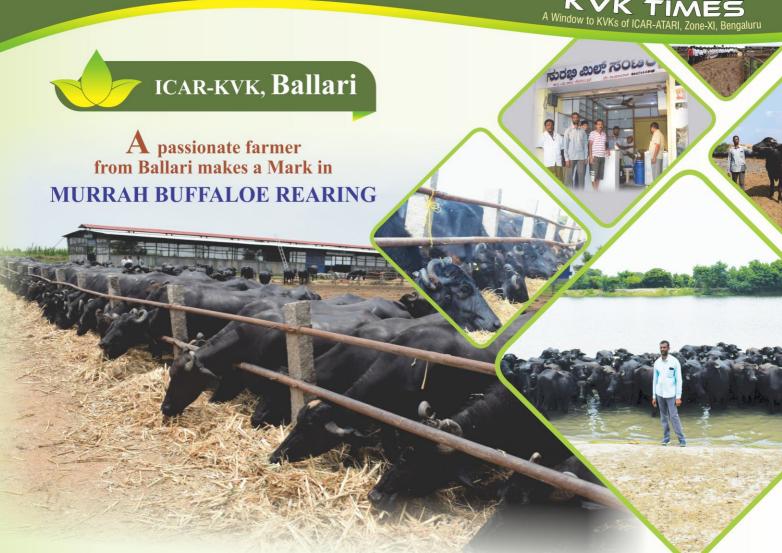
#### FLD Field visit to Onion and Chilli fields





FLD Field visit to Onion and Chilli fields by Dr. Sudha S, Scientist (Plant Pathology) and Mr. Basavaraj Naglikar, SMS (Agro metrology) FLD on twisting disease in Onion and Anthracnose disease management in Chilli on 02.08.2023.





"If a buffaloe yields an average of 16 litres of milk per day in its lactation it is equivalent to one acre of paddy cultivation' says Srinivasa Raju, K., a farmer from Chikka Ballari in Siruguppa Taluk of Ballari district.

Srinivas Raju started rearing Murrah buffaloes five years back and as of now he has a healthy herd of over 250 buffaloes. Daily production of milk is around 700 litres from 65 lactating animals. He has nearly 100 elite she-buffaloe calves at various stages of development. The buffaloes are scientifically reared and they are offered with variety of chopped forage like CoFS-31, Super Napier, Hedge lucerne which he grows in his 10 acres of land. Concentrates are offered as per the individual yield of milk per day which include grounded maize, bajra, red gram chunni and rice bran. He seeks regular guidance from scientists of KVK, Ballari for scientific management of buffaloe calves and to get updated on recent developments in fodder production. He gets an annual net return of 18.5 lakhs from buffalo unit.

He rears fish (Rohu and Catla) in 10 large farm ponds each covering 1 acre of land. Buffaloes are let lose for wallowing in these farms ponds from morning 10 am to evening 3 pm. A break in the middle for one hour is given for consuming dry fodder (paddy straw). As buffaloes have habit of passing dung during wallowing, the farm ponds are enriched with planktons which are consumed by growing fingerlings and the adult fish. This has reduced cost of fish production and he earns an average of Rs. 1 lakh per farm pond. He grows sugarcane in 25 acres of land and paddy in 5 acres. Both help him to get needed forage to rear his buffaloes. Thus, he has integrated his activities around intensive buffaloe rearing and is achieving sustainable returns since 5 years.

Sriniyas Raju has brought elite Murrah bulls from Delhi and is aiming to produce buffaloes which could yield 14-16 litres/day. The excess male murrah calves produced in the farm are gifted by him do the needy farmers for the up gradation of their local stock. He has opened an outlet called "SURABHI MILK CENTRE" in Siruguppa town to sell milk produced in his farm @ Rs. 70/-. He served people of the town even during COVID-19 lockdowns by getting due permission from the local authorities. Excess milk left is utilized for production of value added products like Khoa and some Bengali sweets which are also sold in his outlet. The love for animals and passion to take forward his enterprise with scientific practices is attracting many, both practicing farmers and the rural youths.



#### **Celebration of World Biofuel Day**



ICAR-BIRDS Krishi Vigyan Kendra, Belagavi-1 has conducted World Biofuel Day on 10-08-2023. About 120 students of NSS division of Ramalingeshwar College, Kalloli has taken active participation in the programme. Mr. Adarsha H. S, Scientist (Fisheries)of KVK has briefed on importance of biofuels and role of each citizens in contributing to the biofuel production. Students were taken to the Biofuel Information, Research and Demonstration Center of the KVK and explained the process and procedure of biofuel production from Pongamia, Neem and Waste Cooking oil. Also, biproducts and their utility in agriculture were also explained.

The nursery production aspects of Pongamia and Neem were explained by Mr. Parashuram Patil, Scientist (Horticulture). Students have taken the plantation of Pongamia plantations and about 50 plants were given for further planation in their college campus.



#### **Farmers Field School**



Farmers Field School (FFS) was organized in cotton crop at Hosur village in Bailhongal taluk. The FFS was inaugurated by the Senior farmer Shri Ajjappa Bolettin of Hosur village.

Shri S.M. Warad, Scientist (Soil Science) explained the concept of FFS and said that this school is organized among interested farmers in a identified cotton field in which the group of 25 or more farmers will participate and will be able to identify the type and quantum of field problems like abhorrent weather conditions, soil moisture deficit, nutrient deficiency, incidence of pest and disease

and decide on measures to be adopted which are aimed at enhancing the cotton yield at reduced cost of cultivation. He explained the concept of agro-ecological system analysis (AESA) and its methodology to be adopted in six sessions from seed to seed with facilitation of Scientist/ Extension personnel.



#### **Millet Recipe Contest**



ICAR-Krishi Vigyan Kendra, Bengaluru Rural District organized Millet Recipe Contest on 06.08.2023 at Melekote village of Doddaballapura Taluk. Dr. B.G. Hanumantharaya, Senior Scientist & Head explained the objectives of the programme and welcomed all the guests and participants.

Dr. R.K. Singh, ADG, ICAR, New Delhi inaugurated the programme and explained the importance of minor millets, processing, value addition, branding and marketing. Dr. Subrata Kumar Roy, Director, ATARI, Pune, Dr. Shaik, N. Meera, Director, ATARI Hederabad, Dr. B.T. Rayudu, Principal Scientist, ICAR-ATARI, Bengaluru and Dr. K.P. Raghu Prasad, Head, ATIC, UAS, Bangalore were participated in the programme. Sri Srinivas, Chairman, Melekote Grama Panchayath advised the farmers to grow nutri millets and market the millets after processing and value addition to get more income in his presidential remarks.

30 SHG members were participated in millet recipe contest and exhibit around 85 recepies made from various millets. The best 5 SHG members were awarded. The chief guests and other participants were tasted the products and appreciated the nutricious millet products.

Further, an exhibition on millets was also organized along with various departments of UAS, Bangalore viz., Bakery training unit, AICRP on millets, Post harvest Engineering and Technology, Centre of Excellence on Minor millets and Arkavathi FPO, Hadonahalli.

Totally 150 farmers and farm women, KVK and other line department staff were participated and got benefited from the programme.



#### **Celebration of National Horticulture Day**



On the eve of birth anniversary of Dr. M.H. Marigouda national horticulture day was celebrated at KVK-Bidar. On this occasion one day training programme on ICM in papaya. Progressive farmer Sri. Nagendra Biradar Inaugurated the programme. In his speech he expressed the journey of establishment of butter fruit orchard at his village. Dr. Sunilkumar N.M The Senior Scientist and Head briefed about need of the technology to combat the climate resilience. He urged the farmer to adopt ICM practices in papaya for quality fruit production as well as to reduce cost of cultivation.

In the beginning documentary video was watched by the farmers. In the technical session detailed information on planting nutrient management and irrigation management was explained by Dr. Ningdalli Mallikarjun, Scientist (Horticulture). Dr. Gnyandev B. Scientist (Seed Science and technology) has motivated the farmers to take up seed production activity in major commercial vegetable crops.



#### ICAR-KVK, Chamarajanagar

#### **Millet Recipe Contest**



Millet recipe contestswere organised and conducted at Chatipura village in collaboration with Progressive Farmers Producer Organisation, Irasawadi cluster on 01.08.2023 and at Gumbally village on 03.08.2023. Dr.Deepa, J,Scientist (Home science)briefed about the importance of balanced nutrition in human life and calledfor the exploration of millets and millets value addition for their inclusion in daily human diet owing to nutrition and health advantages of millets. Also she insisted rural women folk to emphasize on processing and value addition of millets for better marketing and better remuneration. The participants presented different millets culinary preparations which included ragi puttu, millet

upma, milletladdu, millet crackers, millet semiya, porridge, kheer, pulav, millet milk, Millet puttu and millet dosa. These preparations were evaluated by a team of KVK scientists, head of the local government higher primary school and panchayat development officer and the best five preparations were awarded with a certificate each. Totally, 70 participants took part in these programmes. As a part of the programme, exhibition of different improved millet varieties (Foxtail millet, Kodo millet, Little millet - BL 6, Proso millet - GPUP 32) and value added ready to cook millet products (Kodo millet Rava, Foxtail millet Bisibelebath powder, Ragi malt, Barnyard millet pongal mix, millet payasam mix) were exhibited for the benefit of the farming community.



#### ICAR-KVK, Chikkaballapura

#### **Millet Recipe Competition**



On the eve of international year of millets.millet recipe contests were organized by ICAR-KVK, Chikkaballapura at Mastenahalli village of Chintamani taluk and Sidlaghatta taluk. Dr. M. Papireddy, Senior Scientist and Head explained about importance of millets. Dr. Akshata Ramannanavar, Scientist (Home Science) highlighted about different millet value added products. Dr. Tanweer Ahmed, Scientist (Agricultural Extension) explained about entrepreneurship development through value addition in millets.Dr. Aruna G.R, Technical officer and other scientists served as the evaluators for the contests. Different millet based dishes were prepared and displayed by rural women. Five best dishes were awarded during the events.

On campus training on integrated pest management in mulberry was organized by ICAR-KVK, Chikkaballapura in collaboration with National Bureau of Agricultural Insect Resources, Bangalore on 14.8.2023. Dr. Papireddy, Senior Scientist and Head explained about importance of eco friendly management practices in mulberry. Dr. S.N. Susheel, Director, NBAIR, Bangalore participated as chief guest and addressed about importance of biological pest management practices, Dr. Shailesh A.N., Principal scientist, NBAIR discussed about different technologies developed by NBAIR for management of different insect pests. Dr. A. Kandan, Principal scientist, NBAIR explained about the utility of Shatpada All rounder, in pest management. Dr. P. Venkataravana, Dean (Seri) highlighted about importance

of integrated pest management practices in getting good yield. Dr. Aruna .G.R, Technical officer delivered a lecture on integrated insect management in mulberry and Dr. Swathi, Scientist (Plant pathology) explained about integrated disease management in mulberry. NBAIR and KVK Scientists visited the mulberry fields infested with thrips and mites and advised the appropriate management practices to the farmers.



Skill Development programme in preparation of Value-added products from Jackfruit



ICAR Krishi Vigyan Kendra, Chikkamagaluru has organized two days Skill development programme in preparation of value-added products from Jackfruit at KVK, Chikkamagaluru.

During inaugural programme, Dr. Kantharaju.Y., Assistant Professor, Dept. of Post-harvest technology, College of Horticulture, Mudigere,said that this training programme is about improved farming technologies of Jackfruit, preparation of various types of value-added products and their marketing scopes and demands so the trainees make use of this training programme.

Dr. Krishnamurthy, A. T., Senior Scientist and Head, Krishi Vigyan Kendra, while addressing the programme, Jackfruit crop is the future crop in agriculture and only 10% of jackfruit crop is being used for value-additionand it is need of the hour to create awareness among the farmers and those who have under gone the training should create social groups and make this technology available to all the farmers.

Mr. Shivanna. President, Parivarthan Trust, Sakharayapattana participated as Chief guests and technical advisor addressed the trainees that, this training programme develop skill, entrepreneurship quality and increase the standard of living. During this programme also learn different technologies developed by the Agricultural universities in preparation of value-added productsin Jackfruit.

The programme was presided by Dr. Shivaprasad, ADE, ZAHRS, Mudigere said that, purpose of this two-

day training programme is to provide extension service, technical knowledge and to create marketing facilities and encouraged the trainees to make use of this training programme.

During two-days training programme, trainees learnt newly developed technologies, varieties of Jackfruit crop, nutritional importance of jackfruit, scope of jack in other countries, packaging material, shelf life, marketing strategies and also practically showed demo on preparation of value-added products like, Jam, Cake, sweets, biscuits and holige etc., Total 27 trainees were participated in two days training programme and got benefit out of this.



#### Mushroom Production and its value addition



A training programme for farm women on "Mushroom Production and its value addition" was organized at ICAR-KVK Chitradurga on 08-08-2023.

The programme was inaugurated by Dr. Kumara O., Sr. Scientist and Head, KVK. During his inaugural speech he opined that there are many species of mushroom available in nature but only few species are edible and remaining are poisonous in nature. Mushroom being a rich source of protein, it can be consumed by diabetic and high blood pressure patients. He suggested the trainees to take up mushroom cultivation and value addition as subsidiary activities that can earn better income and profit.

Dr.Saraswathi, Scientist (Home Science), discussed about importance of value addition for mushroom and its advantages.

Mrs. Vidyavathi, Technical Officer, College of Horticulture, Hiriyur participated as resource person and briefed the information about Mushroom culture and value addition. She also displayed many value added products such as mushroom kurkure, papad, chips, chutney powder, pickle, kukkies, murabba, Ice cream etc.

DR, Mahantesh, Scientist (Horticulture), discussed about the precautionary measures that need to be taken

during cultivation of Mushroom such as temperature, light, cleanliness and hygiene. He also informed that regular consumption of mushroom can prevent the risk of cancer. Dr.Preethi, Scientist (Extension), briefed about marketing strategies of mushroom products. Mrs. Geetha Kumari B N, Technical Officer, KVK welcomed all the Scientists and Participants to the programme and hosted the programme.



#### ICAR-KVK, Dakshina Kannada

#### PM KisanSammelan Programme



ICAR - Krishi Vigyan Kendra, Dakshina Kannada in association with Gram Panchayat organized 14th instalment release of PM KISAN Samman Nidhi Yojana live webcast programme of PM Kisan Sammelan programme on 27.07.2023 at punacha village of Bantwal Taluk.

Dr. Ravindragouda Patil, Assistant Professor (Fisheries Science) and Head-in-charge, Dr. Shivakumar, R., Assistant Professor (Animal Science) and Dr. Mallikarjun, L., Scientist (Soil Science) of Krishi Vigyan Kendra, Dakshina Kannada participating as resource persons provided technical inputs about fish culture, animal husbandry and improvement of soil health status. President, Shri Ramakrishna Moodambail, Vicepresident and Members of Punacha Gram Panchayat and a total of 67 farmers including beneficiaries participated in the programme.



#### ICAR-KVK, Davanagere

#### **Training programme on Nutrigardens**



Training programme on Nutrigardens was conducted for 50 families of Pallaghatte village of Jagalur Tq. in collaboration with Primary Health Centre and Grama Panchayat Pallaghatte, Jagalurtq. Mr. Basavanagowda M.G., Scientist (Horticulture) delivered detailed lecture on Design of Nutrigardenin rural areas, method of cultivation, cultural aspects to be followed. Each Family is provided with vegetable seed kit containing to different vegetables to cultivate in their homegardens. Dr. Devaraja T.N., Senior Scientist Cum Head explained the details about the malnutrition aspects and methods to achieve the healthy diet. Mr. S.K. Manjunath, Ex-Zilla Panchayat Member, Mr. Raghuraja J., Scientist (Extension) compered the programme. Staff of Primary Health Centre and 50 Farm women were present in the training.



## Training programme on strategies for sustainable income through dairy farming





ICAR-KVK, Dharwad in collaboration with Swami Vivekanand Youth Management, Dharwad organized 3 days skilled training programme on strategies for sustainable income through dairy farming from 9-11 August 2023 for farmers of Kurubagatti village of Dharwad taluka. Dr. Jayashree Pattar, Scientist (Animal Science), ICAR-KVK, Dharwad delivered lecture on clean milk production and low cost feed technology. Dr. M. S. Biradar, Senior Scientist and Head, ICAR-KVK. Dharwad addressed the farmers about importance of livestock in IFS farming. Dr. Shrinivas Kotyan, Member, Board of Management, UAS, Dharwad participated as guest, Shri Jayant K. S. and Dr. Gopal Kamalapur of Swami Vivekanand Youth Management, Dharwad were also present. The certificates were issued to about 45 farmers and rural youth.



Hulkoti Horticulture Farmers' Producers Company Limited, Hulkoti (HHFPCL) is supported by ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti and Department of Horticulture, Gadag. It was registered under Company Act, on March, 2019. It has 750 Member Shareholders. HHFPCL was located in Hulkoti village near to ICAR-KVK, Gadag and has a round the clock technical support from KVK. The FPO has mobilized Rs.8.00 lakhs from share capital and each of 10 Directors contributed Rs.2.00 lakhs & financial support of Rs.18.00 lakhs from State Department of Horticulture and started the business with an initial capital of Rs.28.00 lakhs. KVK Scientists providedneed based solution to the farmers visiting FPO. It has become a single window system for farmers in getting their problems addressed.

Majority of HHFPCL members mainly cultivate horticulture crops like Onion, Chilli, Mango, Cashewnut, Vegetables & Flower crops and field crops like Greengram, Bengalgram, Groundnut, Maize, Bt.Cotton and Millets. HHFPCL is associated with companies like Syngenta & IFFCO for the timely supply of Seeds, Fertilizers, Pesticides and insecticidesto farmers at reasonable rate. FPO developed linkage with Ninjacart, a fresh produce supply chain company and supplied Onions worth of Rs.70.00 lakhs. HHFPCL also procured Pomegranate, Mango and Maize from its member farmers worth of Rs. 95.00 Lakhs and sold to food processing units. Thus it is benefiting the Members.

Company is also supplying agriculture tools and equipments in subsidised rate in association with Department of Horticulture. They are also supplying Milk, Butter milk, curd and other milk based products by taking dealership of Karnataka Co-operative Milk Producers' Federation Limited (KMF). They also established Custom Hiring Center (CHC) with the financial assistance from State Horticulture Department and providing farm machineries to farmers on rental basis. Nearly, 1000 farmers benefitted and total of Rs.6.50 Lakhs was realised by the CHC.

Recently HHFPCL established Solar Cold storage with the financial support of State Horticulture Department worth Rs.18.00 lakhs with 5 ton storage capacity and electricity is supplied through solar panels. Perishable horticulture produce like vegetables, flowers, fruits and some spices like Red chilli and seeds like Onion, Chiili, Chickpea & Greengram are being stored by FPO members.

Within 4 years of incorporation, the FPO has transaction of Rs. 6.94 crores, mainly through sale of agri-inputs and equipments to its Members and sales of Members' agricultural produce. Nearly 30000 farmers belonging to 12 villages are getting benefitted through this FPO.

The progress of HHFPCL is remarkable considering the age of the FPO. The Director, ICAR-ATARI, Bengaluru visited the FPO and appreciated the efforts of ICAR-KVK Gadag for handholding of FPO.



## **Technology backstopping to Women SHGs on Marigold farming**



The KVK Ernakulam provided technology back stopping on Marigold farming to Women SHGs during the year 2022 and as a result 6-7 acre of Marigold farms came up in Paravur block. Marigold is not a conventional crop in the district, whereas there is huge demand for Marigold flowers during Onam festive season. Currently, the requirement is met by the consignments from nearby states. The KVK has introduced Marigold farming as an income generating enterprise for Women SHGs during the festival season. Consequent to the success in Paravur block, trainings were conducted at Alangad, Karumalloor, Nayarambalam and Pallippuram areas this yearand the Marigold area could be increased to 15-18 acres. The planting was advised to be done during June first week to June 20th using good quality seedlings so that harvest coincide Onam. The flowers fetch high price of Rs.150-200 per kg during Onam. As a precautionary measure to bacterial wilt, root application of copper sulphate and mancozeb combination 3-4 g/ litre and against beetle attack, spray of quinalphos 2ml per litre is advised.



#### **Hassan Celebrates World Breast Feeding Week**



ICAR-KVK, Hassan celebrated the world breast feeding week programme on 07/08/2023 at KVK, Kandali, Hassan. Mrs.Chaitra, Progessive farm women,

Alurhas inaugurated the programme and in her inaugural speech she said that breastfeeding is the gold standard feeding option for newborns. It gives sustenance to the child as well as safeguards the health of the mother.

Dr. M. Shivashankar, Scientist (Home science) KVK, Hassan chaired the programme and during his presidential remarks he said that that breastfeeding saves mothers from breast cancer and mother's milk provides protection to the children against cancer, diabetes, diarrhoea and cold. Feeding the children with breast milk up to the age of two years helped them grow healthier and stronger. Further he mentioned that 90% of women can produce enough milk for their children, only 41 per cent of infants are exclusively breastfed for the first six months of their life.

Dr. S. Sakamma, Farm manger, KVK, Hassan during her introductory remarks she mentioned that the motto and importance of programme and she also said that world breastfeeding week is seen from August 1 to 7 in order to safeguard, promote, and backing breastfeeding around the world. Breastfeeding an infant, until the age of a half year, is viewed as very pivotal as it gives them them nutrition but also imparts immunity against various diseases. Mrs. Bindu, N., DASEI Facilitator and 36 women Farmers of Hassan district were participated in the programme and the programme was anchored by Dr. Sanketh, C. V. Scientist (Agricultural Extension), KVK, Hassan.



#### An innovative programme "KrishiVigyanigalaNade Raitar Kade" by KVK Haveri



ICAR-Krishi Vigyan Kendra, Haveri organized an innovative program "Krishi Vigyanigala Nade Raitar Kade" (one stop solution for agricultural problems), a dream concept of Dr. P.L.Patil, Hon'ble Vice-Chancellor, UAS Dharwad. It was a first program organized at Hattimattur village of Savanur taluk to providethe real time solutions to the agricultural problems of farmers of the region. Dr. P. L. Patil, Hon'ble Vice-Chancellor, UAS Dharwad in his inaugural speech briefed the importance of Integrated Farming system in changing climate situation for sustainable livelihood. Further, he urged the

farmers for adaption of crop diversity to get sustainable income for their produce. He also emphasized for cultivation of minor millets and its value addition. He suggested the farmers to go for secondary agriculture like bee keeping, sericulture and vermicomposting for yearlong income to substantiate their family income. He informed the farmers about 50 per cent reservation for their children who is seeking the admission for B.Sc. agriculture.

Dr. S.S. Angadi, Director of Extension, UAS Dharwad in his presidential remarks highlighted the importance of weeds and its management in sustainable crop production. He suggested the selection of crops based on the climate change in your region. Further, he also emphasized the cultivation of inter cropping and mixed cropping and advised the farmers to avoid mono cropping. Sri. Nijaguna Shivayogi of Sri Virakta Math of Hattimattur village who presided over the program offered the blessings and praised the Hon'ble Vice-Chancellor, UAS Dharwad for organizing such programs. Further, he insisted the farmers to adopt modern technologies recommended by university for doubling the farmers income.

In this program Dr. Shripad Kulkarni, Nodal Officers KVKs, UAS Dharwad welcomed the dignitaries and Dr. Guruprasad G. S. Senior Scientist and Head, Krishi Vigyan Kendra, Haveri delivered introductory remarks. On this occasion, leaflets on various agricultural technologies were released and scientists delivered delivered on various topics. During this event more than 120 farmers from Savanur taluk were witnessed the occasion.



ICAR KVK Idukki to Organize Animal Health Campaign At Adimaly APCOS Hall



ICAR KVK Idukki organizedAnimal Health at Irumbupalam on 09.08.2023 in collaboration with Alembic Pharmaceuticals, Ernakulam. The programme was presided by T P Baby, President, Mr. K R Seeyal, Ward Member, Irumbupalam, inaugurated the

programme by delivering valuable suggestions. He emphasized on the importance of Animal health campaign for sustaining the productivity of the livestock. Awareness on importance of prevention and control of infectious as well as contagious diseases along with their control measure practices were given to the farmers. Farmers were made aware on the scientific livestock management and poultry practices, hygienic milk production and management practices through the Animal Health campaign. During the camp Alembic Pharmaceuticals, Ernakulam, distributed Veterinary medicines to the farmers. The programme was felicitated by Hassan, Board Member APCOS Society. The program was made effective by conducting awareness training on livestock as well as poultry rearing practices including Ethno Veterinary Medicine practices by Dr. S. Jayababu, SMS (Animal Husbandry), ICAR-Krishi Vigyan Kendra, Idukki, Kerala. 85 farmers and 5 Extension functionaries participated in the Animal Health Campaign. 5 Livestock and 9 poultry birds were treated during the Animal Health Campaign. The programme was made effective by particuipation of KVK officials like by Mr. Sudhakar Soundarajan, SMS (Plant Protection), Ms. Ashiba A, SMS(Agronomy) and Preethu K Paul, SMS(Agricultural Extension), KVK Idukki.



#### ICM in Banana



University of Agricultural Sciences, Raichur, ICAR-Krishi Vigyan Kendra, Kalaburagi-I and University of Horticultural Sciences, Bagalkote, College of Horticulture, Arabhavi jointly organized one day training program on Integrated Crop management in Banana crop at KVK campus on 10.08.2023.

Programme was inaugurated by Director of Extension Dr. S. B. Goudappa in his speech highlighted on scientific method cultivation of banana with the help of scientist and FPO for more and sustainable profit. Arabhavi College Dean, Dr. M.G. Karutagi in his guest lecture advised to the farmers about banana processing and value addition products for longer period keeping quality and creating job opportunities. Dr. M.M. Dhanoji,

Dean, College of Agriculture, Kalaburagiin his presidential speech highlighted banana disease free varieties and modern technologies in banana cultivation.

In this programme Dr. Raju G. Teggelli, Senior Scientist and Head, Principle investigator, SCSP scheme Dr. Kantharaju, Dr. Vasudev Naik, Scientist (Horticulture), Dr. Zaheer Ahamed, Scientist (Pathology) and Dr. Mahantesh Jogi gave lecture on different topics with respect to banana cultivation. Dr. Yusufali Nimbargi, (Agronomy), Dr. Shreenivas B V, Scientist (Soil Science) and more than 60 farmers were actively participated and get benefitted from the program.

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Celebration of National Horticulture day and CDP on Production technology of local horticulture crops



ICAR-KVK, Kalaburgi-II organised and celebrated National Horticulture day in the memories of Dr. M.H.Marigouda, Father of Horticulture at Kalhangarga Tq. Jewargi on 11-08-2023. During the event Dr. Chethan T., Scientist (Horticulture), ICAR-KVK, Kalaburgi-II briefed about importance of Horticultural crops in daily life and their essentiality in maintaining the good health. In the second session, he explained about production technology of tomato, brinjal, onion, cucumber, watermelon and leafy vegetables to the gathered 40 horticulture farmers.

At last, ICAR-KVK, Kalaburgi-II felicitated two best horticulture farmers Sri. Siddu Hangargi and Sri. Niganna P. of the same villages who are continuously involving in cultivation of horticultural crops in their field and become model horticulture farmers for that village.



Farmer - Scientist Interface



ICAR-KVK, CPCRI, Kasaragod organized a Farmer-Scientist interface programme at Friend's Club, Kayyar, Jodukallu, Magalpady Panchayat of Manjeshwar Blockon 4th August 2023. The programme was attended by 56 progressive farmers of the region. Shri. Ashok Holla, Progressive farmer and CEO Tulusiri FPO, Manajeshwar inaugurated the programme and Dr.Pathibha V H, Dr. Rajkumar, Dr. Surekha Scientists from CPCRI and Dr Saritha Hedge & Dr. Benjamin Mathew SMS, ICAR-KVK, Kasargod handled the technical sessions. An interface programme was also held during which the farmers raised various issues related to Arecanut, Coconut and horticulture crops for which the experts shared the suggestions and recommendations. Along with the interface an exhibition was arranged showcasing various bioinput technologies from CPCRI such as Trichoderma coir pith cake, trichoderma enriched arecasheath, talc enriched Trichoderma, Liquid formulation of EPN etc. During the programme agriculture related leaflets, brochures etc. were distributed for the benefit of farmers.



#### Harvesting of GIFT Tilapia fish grown under Liner Pond at KVK farm, Gonikoppal





ICAR KVK Kodagu started a new fish pond of size 30 x 100 x 7 cuftto start a fishery unit at KVK farm at Athur. In January 2023 around 2000 no. of GIFT Tilapia variety of fishlings were left in the pond on 10-02-2023 to assess the growth and yield. Fishlings were reared in water level of 5-6 ft height. They were fed with 2mm, 3mm & 4mm size fish feed. Feed was done 3 times a day with the aerator fixed in the pond so as to maintain optimum oxygen level in the water. Regular biomass culture was also put into the pond to optimise plankton growth. After 6 months the first harvest was done on 10-08-2023 where we could get about 85kg of fish. Tilapia fish with 300-500 g weight were harvested. We are expecting 2 more harvests. Total tank capacity (30 x 100 x 7 cuft) is 8000 no. of fishlings per batch for rearing.



Off campus training program on "Post harvest management practices in Mango orchard"



ICAR-KVK Kolar organized off campus training program on "Post harvest management practices in Mango orchard" at Lakshmi Sagar FPO, Lakshmisagar village, Shrinivaspura taluk on 03.08.2023. Dr. Hittalamani, Retired Horticulture Director explained about the post harvest management techniques, nutrient management in mango. Dr. Asha K M discussed about cultivation of green manure crops as a intercrop. Dr. Shivanand Hongal, Senior Scientist and Head, ICAR KVK Kolar, Dr. Nagaraj, C.G., Managing Director, Mango development board Bengaluru, officials from Horticulture & Agriculture department joined the event. Around 100 farmers participated & benefited from the program.



#### Demonstration of paddy drum seeder in Hanval village





The transplanting of rice seedlings which is a highly labour-intensive and expensive operation can be replaced by direct seeding that can reduce labour needs by more than 20 per cent in terms of working hours requirements. Paddy drum seeder is one of the implement which can reduced human drudgery and can successful implements in the farmers field successfully. With this view point ICAR-KVK, Koppal organised method demonstration of paddy drum seederat Sri virupakash Paddy field in Hanval village. Sri Ragvendra Yaligar senior scientist and head explained that direct seeding method avoids any raising of nursery, pulling up seedlings and transplanting them so that labour requirement for crop establishment is negligible. Farmers can take up paddy cultivation at any time, right away, as there is no requirement or delay of raising a nursery. More than 25 farmers were present in the programme.



**African Snail Eradication Campaign** 



African snail menace was reported in several villages of Kottayam. A Campaign was conducted by KVK Kottayam atMadappally village of Kottayam on 01.08.2023 for the eradication of African Snail. The programme was conducted in collaboration with Health Department and Department of Agriculture. Awareness was given on the extent of damage to crops and human health caused by the pest. Different traps were demonstrated for collecting and destroying the snails. Control measures to prevent damage to crops were advocated. LSGD officials, Asha workers, officials and field level workers of Agriculture Departmenttook part in the programme. The need to carry out the eradication programme on community level utilizing the service of MGNREGA, youth clubs or NSS volunteers was reiterated. Students from KarunyaInstitute of Technology and Sciences, Coimbatore also attended the programme as a part of Rural Agricultural Work Experience.



**Exposing student community to the Science of Agriculture** 



KVK Malappuram conducted one day training programme on "Various crop production technologies" on 10th August 2023. The training was attended by final year BSc. Botany students of MES College, Ponnani, Malappuram. It was conducted to familiarize new crop production methods to the students and to promote

farming among themselves. Both theory and practical sessions were conducted on Composting methods, Production of bio- control agents, Azolla Production, Plant propagation methods- Budding, Grafting and Layering. The training sessions were handled by Smt. Sruthy K. T (SMS-Agronomy) and Sri. Akhilraj B. C (SMS-Horticulture).



Training on Machine Transplanting in Paddy



ICAR-Krishi Vighan Kendra, V.C. Farm, Mandya conducted Off campus training and Method demonstration entitled "Machine Transplanting in Paddy" on 10.08.2023 in collaboration with SKDRDP at Holalu, Mandya taluk. During the programme Dr. N.T.Naresh, Senior Scientist and Head enlightened about the mechanization in paddy cultivation helps in maintaining space between the rows and seedling to seedling which helps in better growth and management of crop. Dr. Rekha Badalingappanavar, Scientist (Agronomy) explained in detail about the preparation of Dapog method of nursery and management practices to be followed in weed control and cultivation process. Subsequently, Ms.M.Chethana, District Project Director, SKDRDP urged the farmers to follow scientific ways of crop cultivation on consultation with the Scientists from KVK, Mandya and harness better yield. Meanwhile, method demonstration on machine planting was taken up in the field of Mr.Shyam and the farmers got benefited from the demonstration.



Kisan Service Society (KSS) conference at Suttur





Kisan Service Society (KSS) of Kannur, Kerala in association with ICAR JSS KVK organized 3 days 3rd Farmers Convention at Sattur Srikshetra. Kisan Service Society is a Non-Governmental Organization with its coverage in 11 states. The society is engaged in agriculture and agriculture related activities. The mission of this society is to introduce innovative technologies undertaken in agriculture, provide profitable, sustainable agricultural advice and create awareness and value addition.

During the three-day national conference, Mr. Shantaveer, Deputy Divisional Manager of NABARD Bank, Mysore, gave information about the facilities available through NABARD from the Central Government.

Director of Indian Institute of Horticulture, Bangalore Dr. Sanjay Kumar Singh said that farmers should give more importance to horticulture crops. He called farmers to know the new technologies, varieties, vertical garden, terrace garden and many more in horticulture.

Dr. Khader Wali while inaugurating the Millet Mela spoke about today's food practices and the problems caused by them. The current food intake is not suitable for the human body. Because of this, more people are getting sick. He said that the solution to this should be to gradually make people use more millets.

Director of Central Food Technical Research Institute, Mysore Dr. Sridevi Anupama Singh said that there is a bright future in the field of food processing, production and marketing of value added products. He said that there is a huge market for high quality food products in both nationally and internationally.

Jagadguru Sri Shivratri Desikendra Mahaswamiji, who presided over the closing ceremony of the conference, said that the government will focus on food security and reducing the cost of the citizens. He said that the role of farmers is important in this regard. He said that farmers and agro-industrialists should work together and contribute better in the development of the society. At the same time, Kisan Service Society appreciated the welfare activities of the farmers and blessed them to work in a better way.

More than 300 Kisan Service Society office bearers, executives and farmers participated in the conference.



ATMA-Monthly Technology Advisory( MTA) meeting at KVK.



The Monthly Technology Advisory meeting of ATMA, Pathanamthitta for the month of August 2023, was organised at KVK, Pathanamthitta in collaboration with Dept. of Agriculture Development and Farmers Welfare, Govt.of Kerala on 9th August 2023 for field problems consolidation and recommendations. Officials from line departments presented the problems faced by farmers in agriculture and allied sectors in the eight blocks of the district. The suggestions given by the experts would be published and made available to the farmers through digital medias. Dr. C.P Robert, Senior Scientist and Head, ICAR-KVK, Pathanamthitta presided over the function and Mrs. Geetha Alexander, PAO, Pathanamthitta inaugurated the programme. The Keynote address was delivered by Mrs. Joice K Koshy, Project Direct, ATMA, Pathanamthitta. A total of 62 participants attend the programme.



#### **Millet Food Recipe Competition**



On eve of International year of millet-2023 ICAR-Krishi Vigyan Kendra, Raichur organized millet recipe contest in Harijanwad, Raichur on 8th August 2023. The programme inaugurated by Dr. S. B. Goudappa, Director of Extension, UAS, Raichur, he suggested to participants to spread awareness about millets and its use in daily life. Anganawadi teachers of Raichur taluk were participated in the event; more then 60 types of dishes were exhibited in the competition.

Dr. S. N. Bhat. Senior Scientist and Head, KVK, Raichur, Dr. Hemalatha, K.J., Scientist (Horticulture), KVK, Raichur, Dr. Raghavendra, B. T. Assistant Professor (Plant pathology), Director of Extension, UAS, Raichur & Er. Sudhadevi, CAE, Raichur were present in the programme organizer of the event Er. Veena,T. Scientist (Processing Food & Engineer), KVK, Raichur moderated the programme.



## Introduction of Newly released Ragi variety KMR- 316



ICAR KVK Ramanagara organized capacity building programme on "Improved production technology in Ragi Cultivation" at KVK Adopted village Hakkinalu, Magadi taluk. Ramanagara has 70,000 ha of area under Ragi cultivation and mainly MR-1 and MR-6 are sown which are long duration varieties and sowing is taken in the month of June and July. Due to delayed monsoon, as contingent crop, KVK introduced short duration Ragi variety KMR-316 newly released by UAS, Bangalore. This variety is suitable for late Kharif with 105-110 days duration and yield-14-16 q/ac in rainfed and 10-20g/ac under Irrigated conditions and resistant for Blast. Dr. Dinesha, Scientist (Agronomy) briefed about the cultivation aspects and demonstrated seed treatment. Dr. Rajendraprasad, Scientist (Plant protection) highlighted about plant protection measures in different crops. Dr. Lata Kulkarni, Senior Scientist and Head, briefed about activities planned for village. Dr, Sowjanya, Scientist (Agril. Extn) briefed about different trainings planned during the year and urged to make use of them effectively. During training DAMU scientist Mrs. Shanta created awareness on weather forecast and its application. Totally Ragi variety KMR 316 was introduced for 50 farmers in the village.



## KVK's initiatives trending towards success through empowering women and youth





Vocational training programmes are indeed inspiring examples of the positive impact of practical education and skill development which can make a lasting difference in people's lives. The programmes at KVK focus on food processing, value addition, mushroom cultivation etc which always have a significant impact on empowerment of both women and youth.

#### 1. Vocational training for women

During the first week of August 2023, KVK Thrissur conducted a vocational training on food processing to a women group being supported by a Cooperative Bank for initiating commercial production. The same bank hadearlier sent a group of women for skill training at KVK, and they started marketing their products under the Brand Name "Jaithri". Another women group selected by Department of Agriculture was also trained by KVK for the preparation of different types of Ready to Serve beverages and millet based productsfor initiating Eco Shops at various areas of the district. Eco shops are always farmer friendly initiative in the state, where good quality, safe local farm produces are procured and sold to common man in affordable prices. Atribal women group from Malayattoor Forest Divisionalso participated in KVK's food processing trainingsto sell their products through "Vanasree" forest outlets.

#### 2. "Sustainable Farming"- Vocational training for youth

A group of rural youth consisting of 15 members participated in two week vocational training of "sustainable farming" at KVK during the second week

of August wherein they actively involved in nursery and field activities of crop production. They also showed active participation in the preparation of oyster mushroom beds. The participants were able to grasp important concepts and skills within a short period, which is encouraging for the potential scalability and impact of the programme.



#### **Monthly Technology Advisory Workshop**



ICAR-KVK Mitraniketan, joinly with ATMA Thiruvananthapuram conducted Monthly technology advisory workshop at KVK Trivandrum. 50 officials including Agricultural Officers, Agricultural Assistants, Block Technology Managers, Field Assistants and Pest Scouts from State Dept. of Agriculture participated in the workshop. Inaugural meeting of the workshop was presided over by Smt. Mini Thankappan, Project Director, ATMA and inaugurated by Sri C.S. Jayachandran, Principal Agricultural Officer. Dr. Binu John Sam, Senior Scientist & Head, KVK welcomed the gathering. SMS Plant Protection & SMS Horticulture offered felicitation. PAO, PD, DPD & State Coordinator, ATMA visited the technology hub of KVK to get to know the latest agricultural technologies showcased. RAWE Students from Karunya Agricultural Universty, Coimbatore who are attending RAWE programme at KVK had arranged an exhibition at KVK in connection with MTA workshop.

Crop specimens with regarded to field problems reported from 11 blocks of Trivandrum district was brought to the MTA. Pest scouts from each of the block presented the field problems in detail using power point presentation. An expert panel comprising SMS Plant Protection, SMS Horticulture & SMS Agronomy suggested remedial measures for the field problems, which is to be brought out through an MTA bulletin.



## Method Demonstration of Use of Arka Decomposer in Areca husk



ICAR- Krishi Vigyan Kendra (IIHR) organized a method demonstration on use of Arka Decomposer in Areca husk. The demonstration was conducted at Katenahalli, Tumakuru in Mr.Chandranna Progressive Farmers, Areca farm. Method demonstration was witnessed by areca farmers from Katenahalli Village. Mr. Ramesh PR SMS Soil Science, shared information about use of Arka Decomposer in Areca Husk. Mr. Prasanth JM SMS Horticulture addressed the issue in arecanut. Mr. Jagadish K.N., SMS Agril. Extension coordinated the programme.



#### **Arecanut Rootgrub Training Programme**



Farmer Producer Organization Hebri, University of Agricultural and Horticultural Sciences, Shimoga, Krishi Vigyana Kendra Brahmavar, jointly organized "ArecanutRootgrub Management" Training Program at the garden of MarmakkiPuttannaBhat, a progressive farmer of Shivpur village, Udupi Dist.

Shivpur Gram Panchayat President Mr. Shekhar Shetty presided over the programme. Dr. Rajkumar, Senior Scientist, Central Horticultural Crops Research Institute Kasaragod, participated as the chief trainer and trained the arecanut growers on result-based innovative biological control method of rootgrub affecting arecanut crop.

Dr. Dhananjaya B, Senior Scientist & Head KVK Brahmavar spoke on the occasion about the root grubs disease affecting Arecanut. Progressive agriculturist Kabbinale Sitarama Hebbar said that due to natural fluctuations such as untimely rains, excessive sunshine etc., the pests that are pathogenic to the arecanut crop are multiplying excessively in the soil in recent years. He said that the solution to these problems can be found only by scientifically managing the plantation under the guidance of scientists Srikanth Acharya, Director, Hebri Farmers Production Organization was present. Supplemental organisms developed by the research center were distributed free of charge to arecanut farmers. Mr. Harish Shivapur gave the welcome and Puttanna Bhatt delivered vote of thanks.

#### Scientific Cultivation of Jasmine





Off campus training programme on scientific cultivation of jasmine was conducted at Moodubelle on 02.08.2023. The farmers were informed about nutrient management, intercultural operations, training and pruning, pest & disease management in Jasmine. Dr. Dhananjaya. B, Senior scientist & Head KVK Brahmavara and Dr Raviraja Shetty G Scientist (Horticulture) KVK Brahmavara served by resource persons. There were 74 farmers in the programme.

#### **Integrated crop Management in cashew**



A off campus training programme on "Integrated crop management in cashew and opportunities for intercropping" was organized by scientist (Horticulture) at Shirlalu on 08.08.2023. The farmers were informed about potetial of cashew as a commercial crop in the scenario of climate change, Scientific cultivation and possible intercrops to earn additional income. Dr Dhananjaya B Senior scientist & Head KVK Brahmavar and Dr Raviraja Shetty G scientist (Horticulture) served as resource person. ShriGunapalaKadambi, progressive farmer Shirlalu presided over the function.



#### Paid Training on Dairy, Sheep and Goat Farming



Krishi Vigyan Kendra Vijayapura I conducted two paid training programmes, one on sheep and goat farming from 03.08.2023 to 05.08.2023 and another on dairy farming 31.07.2023 to 02.08. 2023. Each training programme of 3 days was carried out. Thirty nine farmers and farm women took the benefit of the training programmes. Topics such as breeds feed and fodder management, types of sheds, health and disease management and marketing strategies for a successful entrepreneur etc. were covered during the training programme.

#### On Campus training programme on Nutri-Garden





ICAR-KVK Vijayapura I conducted an on campus training on 04.08.2023 about importance of Nutri-Garden. A total 50 Inner Wheel Club lady members were participated. Dr. R.B. Belli sir, inaugurated the training programme and addresses the participants about importance of chemical free vegetables and fruits, suitable vegetables and fruits for specific season and climate to Vijayapura district. Dr. R.V. Patil creates awareness about the importance of food and how to select chemical free vegetables and fruits in the market. Smt Shweta A. Mannikeri SMS (Home Science), carried out a session on nutria-Garden a sustainable model for livelihood. Which includes, importance and need for establishment of nutria-garden, suitable soil and layout of nutria-garden, seed treatment. The nutrients present in vegetables, fruits, healthy diet and how nutria-garden eradicates the malnutrition in rural and urban areas. Dr. Shilpa V. Chogatapur explained about organic nutrient management in nutria-garden.



#### ICAR-KVK, Vijayapura II

Campaign on white fly management in sugarcane at Gubbewad village.





Sugarcane is one of the major commercial crop grown in Vijayapura district and is being severly affected by whitefly. This problem is more severe in Lachyana, Ahirasanga, Buyyar, Padanur, Shirganur, Gubbewada and other villages of Indi taluk. Due to extreme weather conditions and continues rainfall upto 15-20 days followed by close spacing are the congenial condition for white fly attack. Insect attack the leaves and suck the sap, later leaves turned purple colour. If the infestation severe sugarcane plant completely dried and yield may get reduced. In this regard, Dr. Shivashenkara Murthy M, Senior Scientist and Head and Dr. Prakasha G. Scientist (Agronomy), ICAR Krishi Vigyan Kendra, Indi were creating awareness among farmers through campaign and visit to affected sugarcane field.

The adult whitefly, nymph and pupa are located under the leaves and get turned later into purple colour all along the margin of the leaves finally sugarcane plant completely dried up.

In this campign farmers were advised to spray Acephate @1.5 g/lit or spraying of systemic insecticide using Fipronil 40% + Imidacloprid 40% WG, @0.3 g per liter or Imidacloprid 5% + Acephate 50% SP. @2 g/lit or @0.3 ml of Thiamethoxam insecticide per liter of water. Foliar spray of 19:19:19 or 13:0:45 water soluble fertilizer at @10 g/lit of water followed by micronutrient spray @5g/lit to recover the infected sugarcane plant. In this campign Mr. Sanjeeva talawar, official of Bhimashankar co-operative sugarcane factory, Maragur village. Progressive farmers of Gubbewad village Mr. Dileep, Mr. Chandu Sahukara were also present. In this campaign more than 60 farmers participated and benefited.



#### ICAR-KVK, Wayanad

Training on Value addition of Amla



Training on Value addition of Amla was conducted in associated with Forest Department for farmers from South Wayanad VDVK Kalpetta and South Wayanad FDA Kalpetta. Theory class on "Nutritive importance and value addition of amla" was dealt by Dr. Safia N.E, Senior Scientist and Head, KVK Wayanad. Practical session on preparation of honey amla, amla candy, amla pickle, amla squash and amla chilli squash were also included in the training. A total of 20 participants registered for the training and took active participation in the preparations.

Awareness campaign on Pesticide residue on agricultural produce and its management practices



One dayawareness campaign on "Pesticide residue on agricultural produce and its management practices" was organized by KVK Wayanad in association with Pesticide Residue lab, College of Agriculture, Vellayani and ATMA Wayanad. Sri.Sirajudeen M.A, Deputy Project Director, ATMA inaugurated the programme. Presidential address was given by Dr. Safia N.E, Senior Scientist and Head, KVK Wayanad. The classes were dealt by Dr. Ambili Paul, Associate Professor, Pesticide residue lab, Vellayani. A total of 52 participants from five panchayats of Bathery block took active participation in the training. 50 samples of agricultural produce from these farmers were collected and submitted for analysis in Vellayani Residue lab.



Capacity development programme on Fodder cultivation and Livestock farming





ICAR – KVK, Yadgir conducted capacity development programme on fodder cultivation and sheep rearing in Sharadalli village of Shahpur taluk and Devapur village of Shorapurtaluk. Dr. Jaiprakash Narayan, Senior Scientist and Head briefed about importance of dairying and sheep rearing in Yadgir district. He mentioned that the important components for doubling of income in Indian context is to adopt IFS model. The sheep rearing is taking importance in Yadgir district which could contribute hugely for the upliftment of economic status of farmers.

Dr. Kotresh Prasad, Scientist (Animal Science) explained about the fodder varieties suitable for Yadgir district climatic conditions and also asked farmers to adopt COFS 31 sorghum variety and Hedge Lucerne to provide optimum nutritional requirements of the livestock. He explained economical feeding of livestock by reducing feed and fodder cost, wh9ch accounts more than 50 % in dairy farming. He also briefed about National Livestock Mission which supports to develop entrepreneurs in sheep and goat rearing. ICAR – KVK in collaboration with Department of AHVS, Yadgir promoted and helped for 186 farmers to apply for NLM scheme which provides 50 % subsidy upto Rs. 50 lakh.

Dr. Raja Chavan Scientist (Plant Protection) explained about different dieseaes in paddy and cotton and asked farmers to avail the facilities available at ICAR – KVK, Yadgir. Mr.Mallanagouda coordinated programme at Sharadalli and Mr.Sharanabasava a progressive farmer coordinated programme at Devapur. The programme was conducted under the collaborative project of ICAR – NDRI (SRS) Bengaluru and ICAR – ATARI, Bengaluru which promotes entrepreneurs in Dairy farming in aspirational district of Karnataka. Nearly 120 farmers were benefitted and received fodder seeds in both villages.





Successful IFS farmer Shri Narayan Govind Hegde is from very remote village Karikal, Hillur Gram Panchayath of Ankola Taluk in Uttara Kannada, owns 15 acres of land and practicing arecanut based cropping system, paddy, kitchen garden along with dairy, beekeeping, nursery unit, processing and value addition to horticulture produce etc. In Arecanut, banana, nutmeg, clove, cinnamon, vanilla, cocoa, pepper etc are grown as mixed crops. All along the border, coconut, tree species viz., Cashew, Rambutan, Durian, Ramapatre, Garcinia are planted. Shown special interest in processing and value addition of Garcinia species, banana and jackfruit. The value added products viz., chips, squashes, papad are directly sold to the customers in Ankola city. He has also developed and conserved around 20 different pepper varieties through grafting. His nursery unit contains seedlings of mango, cashew, nutmeg, clove, cinnamom, arecanut and coconut. Dairy unit has Gir, Malnad gidda and Sindhi breeds. He is a model IFS farmer and a very good resource person for fellow farmers. Majority of the crops are grown completely under organic condition. This IFS model plays an important role for maximizing the profit and production.



Successful Intervention of KVK-Ballari in Management of Major Crop Diseases through *Trichoderma* Introduction

Scientists of ICAR-KVK, Ballari diagnosed the soil and seed borne diseases such as damping off and root wilt in chilli, sclerotium root rot in groundnut, chickpea, pomegranate and banana. These are the major production constraints in Ballari District, which resulted 30-45% of yield loss in farmers' field of Ballari District.

Further scientists of KVK, Ballari created awareness about the efficacy of *Trichoderma* on disease management among the farmers through various modes Viz., training programmes, mass campaigning, TV/radio social media and other mass media.

To disseminate the technology for the management of prevailing diseases in major crops like horticulture, pulses and oil seed crops. ICAR –KVK intervened through OFTS, FLDs, CFLD's.

The demonstrations included the seed treatment, seedling dip, soil drenching and FYM enriched with *Trichoderma* and also through soil application in the management of seed and soil borne diseases.

The technology of *Trichoderma* application has been widely accepted and implemented by the farmers of Ballari, Hagari bommanahalli, Hospet and Siruguppa, Hadagali and Kudligi. Through which they were able to reduce the disease incidence to the extent of 40-65%. The farmers of ballari jurisdiction are well aware of the technology and it implemented in their fields and are purchasing this bio-input through Raita Samparka Kendras of the State Department of Agriculture, Organic Institute and Bio-Input Laboratory, Department of Plant Pathology of UAS Raichur and Horticulture College Munirabad regularly.



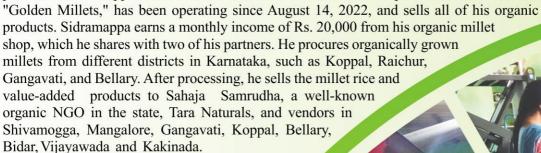
## Ballari Farmer Reaps Success in

## **MILLET CULTIVATION & PROCESSING**

Sidramappa, a 48-year-old energetic and dynamic progressive farmer from Havinalu village in Siruguppataluk, is popularly known as 'Havinalu Savayava Sidramappa' in the district.

Due to the Upper Tungabhadra Canal Project, paddy is the main crop grown in SiruguppaTaluk. Sidramappa's father used to grow paddy over 23 acres of their land before Sidramappa took over the farming. After learning about the harmful effects of pesticide usage, Sidramappa switched to organic farming methods. His innovative approach to growing paddy was recognized by the KVK and the Karnataka State Department of Agriculture, Ballari and he was sent to organic forums and workshops across the state for further learning. In 2014, Sidramappa co-founded Shri Kalleshwara Savayava Krishika Sangha, a registered organization of 62 like-minded farmers from across North Karnataka. He is elected president of the organization and has been instrumental in promoting the cultivation of millets in the region. Through his travels, Sidramappa learned about the health and environmental benefits of millets, and he is committed to increasing their production and consumption. The millet journey of Sidramappa began in 2016. He now cultivates 3 acres of paddy and 20 acres of various millets in an organic practice viz., brown top millet, barnyard millet, foxtail millet and little millet. Even though he had a good harvest, Sidramppa was disappointed because he couldn't find the market for millet grains from 2014 to 2016. He then began to process the millet grains, and he never looked back after that.

He bought a dehuller from the market but was not happy with the product as 20% is rejected broken. He designed his own model that produces only 1-2% broken grains. The recovery rate for foxtail millet is 65%, little millet and kodo millet is 60% and brown top millet is 45%. Sidramappa processes approximately 5 quintals of millets every day for a fee of Rs. 600/Q; two workers are continuously employed at his facility. He spends Rs. 2000 in total to process 5 quintals of millet grains, and he makes Rs. 1000 each day in profit. Sidramappa also produces millet flours, mixed millet flours, papad, ready-to-cook dosa flour, ladu, and idli rava from other millets in addition to millet rice. In recognition of his efforts in millet processing and value addition, the Karnataka State Department of Agriculture has provided Sidramappa with a sales unit near the JDA office premise. The sales unit, named



Mr. Sidramappa has received numerous awards and recognitions from various district departments and the University of Agricultural Sciences Raichur. The KVK in Ballari is constantly supporting Sidramappa in his endeavours.







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