



Director's Message

The equity, efficiency and sustainability of these approaches became a matter of concern and the course of Indian agriculture has largely been influenced by factors such as globalization, trade liberalization and increasing role of private sector. Technology application and demonstrations are the two engines of achieving Doubling Farmers' Income (DFI). The DFI strategy include seven sources of income growth viz., (i) improvement in productivity; (ii) resource use efficiency or savings in the cost of production; (iii) increase in the cropping intensity; (iv) diversification towards high value crops; (v) improvement in terms of trade for farmers or real prices received by farmers; and (vii) shift from farm to non-farm occupations.

Technology Application for DFI would require a new approach which has to be distinct from the earlier approaches and to address issues like sustainability, resource and technology integration. Therefore, there is a need to emphasize new dimensions in technology application process viz., focus on application of biotechnology and tissue culture for multiplication of elite germplasm; use of bio fertilizers, bio pesticides and bio remediation of ground water; precision farming and mechanization for optimal use of precious resources and human labour for reducing the cost of cultivation; linkage with industry; and market driven and export oriented agriculture.

KVKs have to focus on application of cutting edge technologies; give thrust on post-harvest, food processing and value addition technologies; highlight quality in addition to increase in quantity for higher market price and return; protect IPR and farmers' rights; integrate livestock, fisheries and other allied agro-enterprises with crop production; and exploit advances in information technologies for reaching the unreached. Soil health care, water harvesting and management, need based technologies and technology inputs, and farmer-friendly marketing are essential to help our hard working farm families for two fold increase in their income.

V.Venkatasubramanian

KVK Farmers participated in live telecast of Hon'ble Prime Minister

KVKs of ICAR-ATARI, Zone-XI actively took part in the live telecast of PM Kisan Samman Nidhi by Hon'ble PM Shri Narendra Modi on 25 December, 2020. A total of 17074 farmers and 600 staff were registered to the live telecast of which 2455 farmers and 480 staff viewed the programme at their respective KVKs.

Speaking on the occasion, the Hon'ble Prime Minister highlighted that the investment and innovation in agriculture should improve like other sectors. He spoke on farmer-centric initiatives of the Government like Soil Health Cards, Neem Coating of Urea, Schemes for distribution of Solar Pumps which helped in reducing the input cost for the farmers. He added the government tried to ensure that the farmers have a better crop insurance cover. Today, crores of farmers are getting the benefit of the PM Crop Insurance Scheme. He said the government tried to ensure that the country's farmers get a fair price for the crop as the government fixed one and a half times the production cost as MSP for the farmers as per the recommendations of the Swaminathan Committee Report. He added the number of crops for which MSP is available were also increased. The Government aimed to open new markets for the farmers to sell their crop in more than thousand agricultural mandis of the country online.



The Hon'ble PM further said the Government worked towards forming groups of small farmers so that they can work as a collective force in their region. Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers' Welfare emphasized that under the leadership of PM, various schemes are being implemented at the grass root level to strengthen the agricultural sector of the country.



KVK Kozhikode



KVK Gadag



KVK Ballari



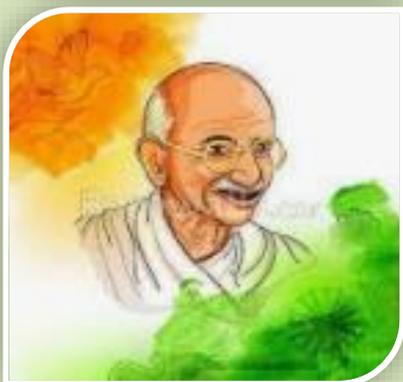
Celebration of 150th Birth Anniversary of Mahatma Gandhi

ICAR-ATARI, Zone XI, Bengaluru organized a wide spectrum of programmes from 26 September to 2 October, 2020 to commemorate the 150th Birth Anniversary of the Father of the Nation, Mahatma Gandhi. The week-long programmes included organization of *Swachhta* activities, talk on Mahatma's visit to Bengaluru, songs on Mahatma, prayer songs of Mahatma Gandhi, short original video screening of Mahatma's speech on non-violence and cleanliness and information on biography of Mahatma.

On this occasion, a CD containing "An Autobiography: The Story of My Experiments with Truth" by M.K. Gandhi was distributed to all the participants to propagate the Mahatma's message.

In his valedictory address, Dr. Venkatasubramanian, Director, ATARI, Zone XI, Bengaluru urged the participants to follow the Gandhian ideals of truth and non-violence. He also appealed the staff to work selflessly in line with the Gandhian principles to make our agriculture a sustainable and profitable venture. The meeting was Coordinated by Dr. Thimmappa K, Principal Scientist. All the staff of ATARI, Zone XI, Bengaluru actively participated in the week-long programmes.

On October 02, 2020, celebrated the event by screening the best Quotes of Mahatma Gandhi and selected scenes from the film Gandhi. Participants were appraised with Gandhian values and *Sanathana Dharma* preachings of Mahatma.



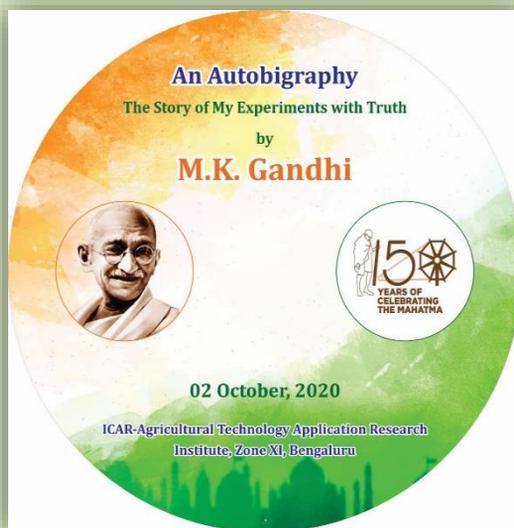
Inauguration



Swachhta



CD distribution



Valedictory

District Agricultural Meteorological units under KVKs

The weather forecast information provided in advance help in inspiring the farmers to plan their farming activities. In this direction, Indian Meteorological Department (IMD) established District Agricultural Meteorological Unit (DAMU) at KVKs under the scheme Gramin Krishi Mausam Sewa in the country. As a part of this, IMD has sanctioned 16 DAMUs for Karnataka (12), Kerala (3) and Lakshadweep (1) under ATARI, Bengaluru during first phase. These DAMUs are multidisciplinary units responsible for preparation and dissemination of district and sub-district agro-met advisories as weather and climate information plays a major role right from selecting suitable crop/field preparation to post harvest operations and marketing.

During the period, 410 block level and district level agro advisory bulletins were disseminated by DAMUs through DSS (Decision Support System) portal, whatsapp groups and messages to 110324 registered farmers. The DAMU centres conducted 107 on and off campus farmers awareness programmes on weather based agriculture and popularised mobile applications like Meghdooth, Damini and Mausam apps by involving 3796 farmers and providing information on types of weather forecasts and how to use these forecasts in agricultural operations. Besides, DAMUs have also developed 32 videos on agro advisories and shared with the registered farmers through WhatsApp groups and YouTube links as well as published 39 newspaper articles and folders for wider dissemination of important agro advisories.



KVK Tumakuru-I



KVK Mandya



KVK Chikkamagaluru

National Innovations on Climate Resilient Agriculture (NICRA)- TDC

Technology Demonstration Component (TDC) under a network project NICRA is being implemented in the country to demonstrate the existing technologies on farmers' fields for enhancing climate resilience. As a part of it, ATARI, Bengaluru (Zone-XI) has implemented technology demonstrations in seven most vulnerable districts, namely Belagavi (drought/heat), Davanagere (drought/heat), Chikkaballapura (drought/heat), Tumakuru (drought), Gadag (drought/heat) and Kalaburgi (drought/heat) in Karnataka and Alappuzha (water inundation/drainage) in Kerala.

Farm ponds and check dams developed and renovated in the NICRA villages were filled with the rain water during the rains in the month of September. The NICRA villagers have used water from the rainwater harvesting structures as protective irrigation for crops and could harvest good crop yield.



Check dam filled with water surrounded by good crops in Siddanuru Thanda, NICRA Village under KVK Davanagere

Resource conserving and eco-friendly technologies in paddy cultivation in Alappuzha district of Kerala





स्वच्छता पखवाड़ा

SWACHHTA PAKHWADA

16 - 31 December, 2020



KVK Chikkamagalur



KVK Alappuzha



KVK Vijayapura-I

ICAR-ATARI, Bengaluru observed SWACHHTA PAKHWADA from 16 - 31 December, 2020. All staff of the Institute and KVKs in Zone XI actively involved in various activities during the period for the cause of Swachhta and organized a total of 2612 activities on various aspects such as basic maintenance for clean and green campus. The activities organized include housekeeping, cleaning of guest house, institute buildings & toilets, campus, etc. (170), sanitation (49), cleaning and beautification of surrounding areas (68), digitization of office records/ e-office (1316), vermicomposting/ composting of biodegradable waste management and other activities on generation of wealth from waste (46), recycling of used water for agriculture/ horticulture purpose (24), swachhta awareness programmes organized at local level (64), swachhta workshops organized (13), participation in swachhta pledge (528), displaying of banner (151), competitions organized (19), campaign through involvement of print & electronic media (104), programmes by involvement of the farmers, farm women and village youth in their adopted villages (60) and yoga(6) with the participation of 16362 participants.



KVK Idukki



KVK Kalaburagi-I



KVK Lakshadweep

Institute Foundation Day Celebrated

Celebrated the Institute Foundation Day on 3 November, 2020. Dr. V. Venkatasubramanian, Director highlighted the achievements of ATARI Bengaluru and its KVKs for upliftment of farming community in Zone-XI. Dr. S. Prabu Kumar, Former Zonal Project Director, ICAR – ZPD, Bengaluru, Dr. M.R. Hegde, Former Zonal Coordinator, ICAR–ZCU, Hyderabad, Dr. K. P. Ramesha, Head, ICAR–NDRI, RS Bengaluru graced the event. On this occasion, staff and retired staff of ICAR–ATARI, Bengaluru shared their experiences about the Institute’s functioning, developments, achievements made over the decades.



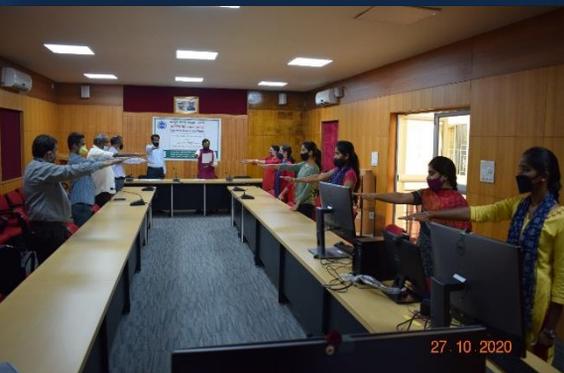
03.11.2020



03.11.2020

Vigilance Awareness Week Observed

Vigilance Awareness Week in consonance with the directions of the Central Vigilance Commission, the Agricultural Application Research Institute (ATARI), Zone-XI, Bengaluru observed under the theme “Satark Bharat, Samriddh Bharat (Vigilant India, Prosperous India)” from 27 October to 2 November, 2020 with enthusiasm and active participation of all staff. Keeping in view COVID-19 guidelines, week began with administering of Integrity Pledge to all staff of ATARI by Dr. M.J. Chandre Gowda, Principal Scientist (Agril Extn) on 27-10-2020 and concluded the week with a talk on vigilance related issues on 2-11-2020 by Dr. V. Venkatasubramanian, Director, ATARI, Bengaluru.



27.10.2020

Dr D. V. Srinivasa Reddy, Principal Scientist and Vigilance Officer of ATARI, Bengaluru coordinated the event.

Celebration of World Soil day

KVKs in Zone XI conducted World Soil Day on 5 December in which 2368 famers participated. On the occasion, soil health cards containing crop wise nutrients/fertilizer recommendations were distributed to farmers.



KVK Pathanamthitta

KVK Belagavi-II



Puthari FPO Promoted by KVK Kodagu

The Puthari Farmer Producer Organization was established and registered as Puthari Farmers Producer Company Ltd. in the year 2017 with financial support from NABARD under the technical guidance of KVK Kodagu. Besides providing office space in its campus, KVK has provided handholding support to Puthari FPO through regular capacity building programmes.

The Puthari FPO started with 15 products in the beginning and at present dealing with 430 products, catering to the needs of coffee, pepper and paddy farmers. Products includes manures, fertilizers, plant protection chemicals, irrigation pumps, sprinkler and drip irrigations items and farm machinery. With increasing membership and to cater to the needs of far-flung members, the second retail outlet was started in Virajpet town on 22 August 2019 and Rural Mart in KVK campus on 11 November, 2020. Rural mart initially was started as a small intervention during the COVID lockdown period to help small and marginal farmers in selling their fruits and vegetables. Realizing the importance and the success in giving farmers a fair price for their produce, the Rural mart is being continued. Puthari FPO has also prepared a roadmap for the marketing of coffee and pepper grown by its members under its own brand "Jamma".

As dolomite and lime are used in bulk for plantation crops, Puthari FPO initiated supply of certified lime and dolomite at farmers door step which saved about Rs. 1750/acre. Members of FPO could reduce the cost of cultivation and enhanced adoption of technologies due to regular capacity building by KVK Scientists. The farm inputs supplied to farmers by Puthari FPO are at much cheaper rate than in the market, as Puthari FPO charges only minimal administrative costs and keeps minimum margin.



Puthari FPO – An overview



Director, ICAR-IIHR Bengaluru, Dr. M.R. Dinesh with FPO members



Empowerment through Puthari FPO

After seeing its progress, the membership of Puthari FPO started growing. As on November, 2020, the membership stands at 980, which effectively translates into more than 25,000 acres, thus making it one of the largest farmer organizations in the area of plantation crops. Together, the members of Puthari FPO produced about 7500 tonnes of Robusta Coffee Cherry in one year. The company has achieved a turnover of Rs. 2.20 crores in the year 2019-20. The number of footfalls to KVK has increased to 60-80 farmers every day as the FPO outlet was placed in KVK campus.

On Farm Sale of Watermelon Facilitated by KVK Udupi during COVID-19

Watermelon is cultivated in 350 acres in in paddy fallows during late rabi and early summer in Byndoor taluk and Kundapura taluk of Udupi district. Major market for the watermelon cultivated in Udupi district is Kerala and neighbouring districts-Dakshina Kannada and Uttara Kannada. Shri Suresh Nayak, Hiriyadka village, Udupi district has cultivated 13 acres of watermelon in staggered system under the technical guidance of KVK, Udupi. Shri Nayak has adopted recent technologies in watermelon cultivation viz., in line drip irrigation, fertigation, integrated nutrient management, Arka Microbial Consortium and *Bacillus magaterium* to control wilt and other soil borne diseases and to improve the phosphorus availability to the plants, use of fruit fly traps, yellow sticky traps and blue sticky traps. The first harvest was started on 18 March, 2020. Unfortunately, all the trading links with the middlemen and wholesale traders from Kerala and other neighbouring states were closed because of lockdown imposed on 23 March 2020 throughout the country due to outbreak of COVID-19 pandemic disease. In this circumstances, KVK came to the rescue and shared the information about the farmer details and quantity of watermelon harvested by Shri Nayak through whatsapp groups to all KVK contacts.

Through various network groups, the information reached to nearly 3850 members, who were wholesale traders and individual buyers. After 3 hours of sharing the contact details the farmer Shri. Suresh Nayak received around 80 to 100 phone calls enquiring for purchase of watermelon from nearby places and neighbouring districts.

Shri Nayak sold nearly 36 tonnes in 3 days, at his farm at an average price of Rs 10/kg of fruit. Shri Nayak once who had lost all his hopes and was about to undergo huge loss, where he had spent nearly Rs 60,000 per acre as cost of production and was in search of market, could realise that the market had ventured to his farm. On an average 250 to 300 direct consumers purchased watermelons which accounts to 90 % and 10 % were traders who purchased as wholesale buyers. According to the farmer, the lockdown has changed the complete scenario of vegetable marketing wherein during previous year 90 % of produce was procured by wholesale buyers and 10 % was procured for own consumption. The article on sale of watermelon at the farmer's place highlighted in local and state newspapers attracted many more customers. Even after a period of 30 days, on an average weekly 1537 direct consumers were procuring watermelon from his farm.

Shri Nayak, to continue the flow of consumers to his farm till the lock down period, he himself started to procure pineapple, ash gourd, cucumber and pumpkins from other farmers who faced difficulty in marketing due to lock down. His farm is still serving as a market for the direct consumers. Nearby farmers are also benefitted as they are getting more price when compared to wholesale market. Total of more than 322 MT of watermelon, pumpkin, cucumber, pineapple, tapioca, onion etc. sold through on-farm sale with return of Rs. 22,80,500. Thus, the social media has opened the new avenues in the field of marketing of farm produce, avoiding middlemen and the farm fresh produce is reaching the consumer at an affordable price.



KVK Spectrum : ICAR-KVK, Alappuzha



KVK-Alappuzha was established in 2004 under ICAR-Central Plantation Crops Research Institute (CPCRI) and located in its Regional Station, Kayamkulam campus.

KVK has infrastructure facilities like administrative building, sales counter, Agro-Processing Training-cum-Incubation Centre (APTIC), soil and water testing lab, farm pond, Spawn production unit, Bio-agents production unit, Vegetable seeds/seedling/Planting material production units, Layer chicks production unit, and different farm implements including tractor, mini tractor, power tiller and Bolero jeep.

KVK has well established demo units viz., organic recycling cum manure production unit, goat unit, dairy unit, poultry brooder house, poultry grower house, fish-duck integrated farming system, herbal hut, and mushroom production unit in addition to crop demonstration units.

Salient achievements

- ❖ Demonstrated paddy cultivation in the below sea level farming region of Kuttanad, which was adopted in more than 200 ha by about 250 farmers.
- ❖ Horizontal expansion of IISR-Prathibha (turmeric) and IISR-Varada (ginger) varieties and thereby increased the productivity and production.
- ❖ Scientific production and processing practices of turmeric were demonstrated and up-scaled among 2300 farmers in the district.
- ❖ Productivity enhancement of crops through soil health management practices.
- ❖ More than 5000 farmers use eco-friendly practice for fruit fly management in mango and about 2500 farmers use cue lure traps for vegetables in an area of 200 ha in the district.
- ❖ Enhancement of income from dairy and goat farming through a package of management practices for stress, feeding, reproduction, and diseases.
- ❖ Upliftment of more than 2000 poultry farmers through appropriate technological interventions.
- ❖ More than 50 mushroom production units were established with an average monthly income of Rs.5000/- to 25000/- for household farm women.
- ❖ Enhance income of small and marginal farmers through establishment of 50 units for coconut, 35 units for jackfruit, 20 units for vegetable products.

**Awarded with
Pandit Deendayal
Upadhyay Rashtriya
Krishi Vigyan
Protshahan
Zonal Puraskar
2016**



QR codes on inputs – cheap and affordable technology: Act as quick reference guide to farmers, facilitates self learning, resource optimization, replicable model to other agencies, awareness creation on the use through capacity development programmes



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

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Wishing a very happy New Year 2021 and an International Year of Vegetables and Fruits