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Azadi Ka
Amrit Mahotsav

ICAR-ATARI Bengaluru NEWSLETTER



July to September, 2022

Volume - 3 : Issue - 3



Director's Message

My hearty congratulations to the award winners from Karnataka, Kerala and Lakshadweep. It is a great pleasure to note that the KVK Ramanagara has been awarded with "Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protsahan Puraskar-2021". Similarly we have with us farmer award winners Shri Suresh Vishwanath Patil from Belagavi district, Ms. Bindu Joseph from Kozhikode District, Dr. Mohammed Idris Ahmed Quadri from Bidar District, Shri Mohammed Ameerbabu K from Malappuram district recognised during ICAR Foundation Day 2021. You also know that one of our KVK Tumkur II got recognized for their good work in water conservation with National Jal Shakti Award. Also, Udupi Kalparasa Coconut and All Spices Producer Company Limited (UKCAAS) has received the Best Farmer Producer Organization Award at the national level. I take this opportunity to congratulate all the KVKs in the zone for bringing this recognition to our zone and take this opportunity to request all of you to sustain your effort in bringing out such national level recognition for the good work done by KVKs and the farmers.

While celebrating our past achievements, we are also have the responsibility to plan our future to strengthen our agricultural production system with technologies and methodologies so that farmers can get more out of less. Getting more from less is our future thrust in agriculture where in precision farming is the only way out for bringing sustainability to our resources and profitability to our farmers. Experts found underground and surface waters conservation, rural areas development, increase of productivity and increasing income as the most important impacts of precision agricultural productivity technologies. Precision farming or precision agriculture is a modern management strategy that employs the details of site-specific nutrient management, remote sensing, global information system, global positioning system, variable rate application to precisely manage the production input. Three major components of precision agriculture are information, technology and management. Now I call upon the KVKs to take note of strengthening the farmers with precision farming practices, technologies and methodologies for bringing sustainability and profitability.

Jai Kisan, Jai Bharath.

(V. Venkatasubramanian)

Sushri Shobha Karandlaje, Hon'ble Union Minister for State visits KVK Pathanamthitta

Hon'ble Union Minister of State for Agriculture and Farmers' Welfare, Sushri Shobha Karandlaje visited ICAR-Krishi Vigyan Kendra, Pathanamthitta District, Kerala on 7 July 2022 and inaugurated the workshop on Technologies for Climate Smart Agriculture.

Hon'ble minister stated that opportunities for earning additional income should be exploited by timely export of agricultural products. With the aim of doubling the income of farmers, the central government has devised and implemented the PM Kisan Samman Nidhi, RKVY, Fazal BimaYojana, Sub-Mission on Mechanization in Agriculture etc. Farmers and farmers groups need to be connected to such schemes for increasing their income through increased production, sustainable marketing systems and harnessing innovative opportunities in value addition sector. The Hon'ble Minister also said that the export potential of jackfruit and rambutan, which are easily available in Kerala, should be explored.



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भाकृअनुप - कृषि प्रौद्योगिकी अनुप्रयोग अनुसंधान संस्थान

ICAR-Agricultural Technology Application Research Institute

Zone-XI, Hebbal, Bengaluru, Phone: 080-23510616; Email:atari.bengaluru@icar.gov.in

Sushri Shobha Karandlaje, Hon'ble Union Minister for State visits KVK Pathanamthitta (Continued from P.1)

CARD Director Rev. Moncee Varghese presided over the function. Dr. Jayasree Krishnankutty, Director of Extension, Kerala Agricultural University delivered the keynote address. Dr. C.P. Robert, Senior Scientist and Head of KVK Pathanamthitta welcomed Hon'ble Union Minister.

On the occasion, "Sanjeevini Kit", comprising of seven organic inputs for household vegetable cultivation and a booklet on "Plant Propagation Techniques" were released. The Minister visited the State Resource Center for Jackfruit, marketing outlets, laboratories and demonstration units of the KVK. As part of the programme, exhibitions on products of entrepreneurs under the project "Attracting and Retaining Youth in Agriculture (ARYA)" and activities of KVK's project for empowerment of special children were also arranged.

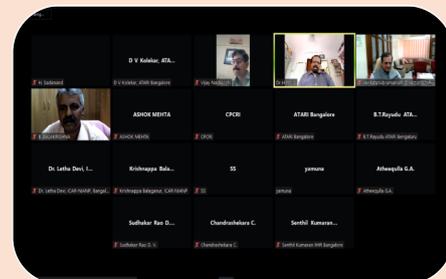


Review cum ZPMC meeting of Farmer FIRST Programme

The ICAR-Agricultural Technology Application Research Institute, Bengaluru organized the Review cum Action Plan Workshop and Zonal Programme Management Committee (ZPMC) meeting of Farmer FIRST Programme on 17th August, 2022.

Dr. V. Venkatasubramanian, Chairman, ZPMC & Director, ICAR-ATARI Bengaluru in his opening remarks, emphasized strengthening of programme by giving more thrust to skill development and focusing more on natural farming practices and using less external agriculture inputs by in-site conservation of resources and ploughing back their resources into the system to reduce cost and increase profit. He suggested to make field visit to make the programme more successful and focused. Dr. A. K. Mehta, Member ZPMC & Former ADG (AE), ICAR HQ, New Delhi emphasized importance of visiting fields to see what practically is being done and appreciated efforts of the team. Dr. H. Phillip, Member ZPMC & Former Director of Extension, TNAU, Coimbatore also emphasized importance of visiting fields. Shri H. Sadananda & Shri Vijayendra Gurunath Nadajoshi, Farmer representatives & Members ZPMC participated and contributed with valuable feedback.

Three implementing centers viz. ICAR-CPCRI, Kasaragod (Regional Station, Kayamkulam), ICAR-IIHR, Bengaluru and ICAR-NIANP, Bengaluru presented the progress for the year 2020-21 and action plan 2021-22. The scientists from ATARI Bengaluru were present and interacted during the session.



KVKs virtually participated in ICAR's 94th Foundation Day Ceremony – 2022

“The farmers’ trust in the Krishi Vigyan Kendras is really a matter of pride for the Council”, said Shri Narendra Singh Tomar, Union Minister of Agriculture & Farmers’ Welfare while inaugurating the “94th Foundation Day of Indian Council of Agricultural Research & Awards Ceremony - 2022” held at the National Agricultural Science Centre Complex, New Delhi on 16.07.2022.



In response to the clarion call of the Prime Minister Shri Narendra Modi for doubling farmers’ income, the income of millions of farmers has more than doubled with the consistent efforts of the Ministry of Agriculture & Farmers’ Welfare / ICAR, state governments and farmers. As a part of the “Bharat Ka Amrut Mahotsav” to commemorate 75 Years of India’s Independence, the Union Minister, Shri Tomar released *E-Compilation of the Success Stories of 75,000 such successful farmers* who have more than doubled their income. He also released the state-wise summary of the successful farmers. Shri Tomar congratulated the ICAR and Krishi Vigyan Kendras for the compilation. He exuded his confidence that this compilation will motivate and inspire more and more farmers to raise their income leveraging the various schemes and initiatives of the central government. The Union Minister also virtually interacted with the various successful farmers during the occasion.

Shri Tomar stressed that although the country has achieved self-reliance in crops’ production; but the scientists should be ready to face the newer challenges that may occur in the due course of time. The Union Minister congratulated the Council’s scientists for their dedication that has made the country to be self-reliant on the various fronts of the agricultural arena.

Shri Tomar urged ICAR to celebrate the *ICAR Foundation Day* as “*Sankalp Diwas*”. Shri Tomar exhorted the scientists of ICAR to set the various goals / targets for the benefits of the agricultural sector in general and farmers in particular and to take it as “*Sankalp*” to be fulfilled during the ensuing year.

The Guest of Honor, Shri Kailash Choudhary, Union Minister of State for Agriculture & Farmers’ Welfare stated that the Farmers’ Producers’ Organizations are the platforms that enable the farmers to sell their products on a large scale at better prices. The Minister said that it is the hard work of the Council and its scientists that a large number of farmers have doubled their income as has been envisioned by the Hon’ble Prime Minister, Shri Narendra Modi. He also stressed on the perfect utilization of the drone technology by the farmers that have helped the farming community on a large scale. Attracting the farming community to practice natural farming was emphasized in his address.



Shri Parshottam Rupala, Union Minister of Fisheries, Animal Husbandry & Dairying urged the Council to gear-up and work for compiling and documenting the Council’s various unparalleled achievements made till date. The need for making the drones available to the farmers through the council’s custom hiring centres was accentuated by the Union Minister. Shri Rupala suggested the Council to disseminate the success stories of doubling the farmers’ income to the various farming communities to encourage them in achieving the same in their lives too.

Dr. Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) highlighted the Council’s achievements made during the preceding Year.

Prof. Ramesh Chand, Member, NITI Aayog also applauded the landmarks achieved by the Council in the development of various technologies for the agricultural and farming communities.



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ICAR's 94th Foundation Day Ceremony

The Krishi Vigyan Kendras pan India also arranged the Live Webcasting of the event. A total of 3759 farmers and other participants viewed the telecast programme at their respective KVKs of Kerala, Karnataka and Lakshadweep.



Palakkad

The Chief Guest and the dignitaries released the various ICAR Publications including DFI success stories in which stories from ATARI Bengaluru were incorporated.



Davanagere



Thrissur



Gadag

Hon'ble Union Minister of state Shri. Bhagwanth Khuba visited KVK Kollam



The Hon'ble Union Minister of State for Chemicals and Fertilizers, New and Renewable Energy, **Shri. Bhagwanth Khuba** visited ICAR-Krishi Vigyan Kendra, Kollam on 21.08.2022.

In his special address Hon'ble Minister mentioned the tremendous growth of the agriculture sector in our country. He stressed the role of ICAR institutes, SAUs, and KVKs in the growth of the agricultural sector and the welfare of farmers. He suggested that KVKs should be strengthened as 'Innovation Centres' for the betterment of the farming community. Every research programme by way of student work and research projects of the institutes should aim for the benefit of the farmers and be able to commercialize the technologies. KVKs should present these outcomes as a business model to farmers.

The Hon'ble Minister mentioned the importance of spices like pepper and ginger by pointing out the decline in area and production in Kerala. Since these crops are having high export potential, more focus should be given to area expansion through technological interventions by KVKs utilizing the central and state sector schemes for tackling the current scarcity of these spices which can contribute to **Atmanirbhar Bharath**. **KVK Times Volume 1 Issue 26 (July 16-31) 2022** compiled and edited by KVK Kollam- an initiative of ICAR ATARI Bengaluru for facilitating the dissemination of valuable wealth of knowledge from the 48 KVKs of Kerala, Karnataka and Lakshadweep was released by Hon'ble Minister.



The prestigious outcome of OFTs- **Ornamental banana cut flower bouquet**—a new scope for floriculture was also launched.

Director of Extension, KAU, Thrissur, Dr. Jayasree Krishnankutty M., Dr. Bini Sam, Professor and Head KVK Kollam, Dr. Bindhu M R, Professor and Head (i/c) FSRS, Sadanandapuram, Smt. Chandini, Additional Director (i/c), Department of Agriculture and Farmers Welfare (GoK), scientists from KVK and FSRS and Deputy Directors from Department of Agriculture were also present. An interactive session for the farmers and representatives of FPOs was also arranged with the Hon'ble Minister.

KVK Belagavi-1 farmer received ICAR National Award

Shri Suresh Vishwanath Patil from Budhihal village of Nippani Taluk, Belagavi district is a humble person who is extremely passionate for innovation in agriculture. ICAR has recognized his achievements and awarded with Pandit Deen Dayal Antyoday Puraskar which includes a certificate and Rs.50,000/- prize amount.



For the sustainable water requirement the farmer has developed the Rainwater Harvesting Model. With one time investment of Rs. 42150, can recharge up to 3 lakh liters of water per day to borewell area.



Modified silage machine with the expanded capacity of two tonnes per hour could prepare silage bags.



Customized single bullock drawn equipment helps to reduce drudgery and also serves the purpose of ease of agriculture operations of small land holders.

Innovation, hard work, dedication and online expertise brings laurels to Ms. Bindu Joseph, from Kozhikode

Ms. Bindu Joseph, a young woman farmer from Kozhikode, Kerala won the prestigious Pandit Deen Dayal Upadhyay Antyodaya Krishi Puraskar 2021 instituted by the Indian Council of Agricultural Research, New Delhi.

She received this National Award from honourable Union Minister of Agriculture and Farmers Welfare Shri. Narendra Singh Tomar on 94th Foundation day of the ICAR on 16th July 2022, at a function held in A.P. Shinde Hall, NASC Complex, New Delhi. The award recognizes the contributions of marginal, small and landless farmers for developing integrated and sustainable models of agricultural farming. Smt Bindu Joseph was nominated for this award by the ICAR-Krishi Vigyan Kendra, Peruvannamuzhi under the Indian Institute of Spices Research, Kozhikode, Kerala.



The award was bestowed to her in consideration of her contributions towards quality seedlings production and supply to the farmers. She has a plant nursery which was initially started with few plants in 36 cents of own land around the house which soon became a roaring success. She also focuses on mass production of coconut seedlings, exotic fruit and ornamental saplings, ginger, turmeric seeds, etc along with effective utilization of land resources and inputs, innovative methods of dissemination of agricultural knowledge, etc.



The farm is also considered to be the largest bush pepper production unit. She used to quote “she is able to demonstrate income of 36 acres land only by using her 36 cents of land”. Ms. Bindu also successfully runs a YouTube channel named as “Techflora ” with over 1,00,000 subscribers to share their innovative farming knowledge with others. Regular videos on farming for the benefit of farmers as well as young entrepreneurs are uploaded in the channel. In recognition of their innovative farming activities, the Jojo-Bindu couple has already won many national and state awards in the field of agriculture and their nursery was visited by several progressive farmers, experts and VIPs. Their farming model is worth emulating by all. Her contact mobile no: 9446865899 .



ICAR – KVK Bidar Farmer Bagged ICAR - Haldar Organic Farmer Award 2021

Dr. Mohammed Idris Ahmed Quadri, ICAR KVK Bidar contact farmer has been awarded ICAR-Haldar Organic Farmer Award 2021. He received this National Award from Honourable Union Minister of Agriculture and Farmers Welfare Shri. Narendra Singh Tomar in the 94th Foundation day of the ICAR on 16th July 2022, at a function held in A.P. Shinde Hall, NASC Complex, New Delhi.



Dr Quadri has been practicing organic farming since 15 years and has vast experience of over 50 years in agriculture and allied activities. He has developed new technologies like slurry digester, poisonous plant extract for pest management, calves feeding tub, animal lifting device, weed cutter, manure grinding and mixing machine and innovative intercropping in sugarcane.

Solar system for water pumps and street lights, sugarcane eye buds cutting machine, animal deterrent device, combined seed cum fertilizer drill are some of the modern technologies adopted by him. His contribution towards organic farming and humanitarian services has granted him widespread recognition.



Marketing system & economics:

He has developed his own market channel to market the organic produce in the city and the neighboring cities. He is directly selling his farm produce to the individuals and professionals who can afford to pay premium price for the organic produces, consumers from Mumbai and Hyderabad are directly contacting him for purchase the quality produce.

Practices for soil and water conservation at farm level

An abandoned-well is converted into groundwater recharge pit by diverting run-off water. Ponds are excavated to recharge ground water level. Bunds are formed around the fields to manage soil erosion. Check dams are constructed to conserve water and soil. Harvesting natural resources like rain through compartment bunding also helps in preventing soil erosion. To conserve water, adopted modern irrigation technologies such as Sprinklers, drip and rain pipe. Alternate furrow irrigation saves natural resources like water and conserve the soil from its erosion.



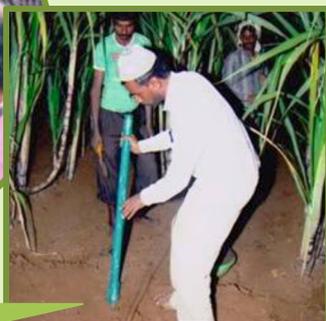
Shri. Bhagwanth Khuba, Hon'ble Minister of State for Chemicals and Fertilizers, GoI visited to observe the record yield of onion seed production, other demonstration units and innovative farm equipments.

Dr Quadri has been recognized and awarded with 13 state and national award among them the “Plant Genome Saviour Farmer Award – 2021” by the Protection of Plant Varieties & Farmers' Rights Authority, (ICAR) New Delhi for his contribution towards plant variety protection. He is also acting as Agri-Technocrat of ICAR Krishi Vigyan Kendra Bidar. He regularly visits Krishi Vigyan Kendra Bidar to attend seminars and capacity building programme for educating the farmers.



Protection of plant varieties

Indigenously developed FYM application cow bars



Sugarcane crusher 50 tons day capacity jaggery making

Manure mixing and grinding mill, Indigenously designed and developed



ICAR – KVK, Malappuram farmer bagged the national award- Jagjivan Ram Innovative Farmer Award 2021 of ICAR

Shri. Mohammed Ameerbabu K. nominated by KVK Malappuram was awarded with ICAR-Jagjivan Ram Innovative Farmer Award 2021 during the occasion of the 94th Foundation Day of ICAR at New Delhi. He has been selected based on his outstanding contributions in adoption, development and modification of innovative technologies for sustainable productivity and high profitability in agriculture. The award consisting of certificate, citation and a cash prize of Rs.1.00 lakh was presented by the Union Minister for Agriculture and Farmers Welfare Sri Narendra Singh Tomar in the presence of other dignitaries from Union Cabinet, ICAR and national institutes.



Sri Ameer Babu a resident of Malappuram district in Kerala, is a marginal farmer with 0.6 hectare of wet land and 0.14 hectare of garden land of his own. However, he is cultivating 23 acres of horticultural crops and 7.5 acres of paddy in leased land through his innovative interventions like sequential cropping, crop rotation, poly-culture farming etc. The vegetable cultivation of 23 acre is covered by precision farming techniques with automated micro-irrigation, fertigation and plastic mulching.



To buildup the soil health and soil micro fauna, organic management is adopted as the best strategy, but the availability organic manure of promising quality is a daunting challenge faced by the farmers. To win over this challenge, a customized organic manure production unit has been started with the convergence of farmers' service cooperative society. With his untiring effort and tenacious will, he made many possibilities out of the impossible, and this award is a true testimony for his contributions.



The farmer renovated a water stream line in his panchayath named *naaraanath chira* and made a check dam across the stream so that the 23 acre vegetable cultivation could be irrigated throughout the year, also ensuring water availability to irrigate 300 acres of land benefitting many other farmers. In the year 2017, he launched an enterprise to provide services for the construction of poly-house, rain shelter, installation of drip and wick irrigation systems, setting up of kitchen garden/nutritional garden in households, schools, public offices etc and is successfully running with huge demand from various corners of the district.



UKCAAS, Udupi received Outlook Agritech Best FPO Award



The **Udupi Kalparasa Coconut and All Spices Producer Company Limited (UKCAAS)**, started under the guidance of the District Bharatiya Kisan Sangh, has received the **Best Farmer Producer Organization Award** at the national level.

Hon'ble Union Agriculture Minister Narendra Singh Tomar presented the Best Farmer Producer Organization Award to **Shri Satyanarayan Udupa Japthi**, Chairman of UKCAAS at the Agritech Summit and Awards ceremony held at the Indian Council of Agricultural Research, New- Delhi on September 14, 2022.



The Coconut FPO started in 2016, wherein 54 village-level Coconut Farmer Producer's Societies and 3 Taluk level Federations were formed in the Udupi district by the initiative from the Department of Horticulture, Udupi. The associated members of societies and federations approached ICAR-Krishi Vigyan Kendra, Udupi. A two-day workshop on tapping kalparasa/neera and value-added products was organized for the FPO members by ICAR-KVK, Udupi. Inspired by the workshop, a team of FPO members visited CPCRI, Kasaragod, where they interacted with Dr. K. B. Hebbar, Principal Scientist of the Plant Physiology Department at CPCRI, Kasaragod, the person behind the development of successful technology of kalparasa/neera tapping.



The initiative of transferring the CPCRI, Kasargod developed technology of kalparasa/neera tapping to the FPO was undertaken and an MOU was signed between the two organizations. Licensing to tap kalparasa in Karnataka is permitted only through Farmer's Producer Company, hence UKCAAS, a Farmers Producer's Company, was started in March 2019, with the initiation of 10 Directors, 1028 farmer members as shareholders, spread out in 3 talukas of Udupi district. In March 2020, the company obtained an "In Principle" license from the Karnataka State Excise Department, with the recommendation from Horticulture Department to train tappers and run the kalparasa/neera trial unit.



Presently, company is tapping coconut trees of **19 farmer's/member's garden in Japthi village** and recently started tapping coconut trees of **12 farmer's/member's garden in Hossadu village** of Kundapura Taluk. At present, daily production capacity is **100 liters** and intended to increase up to **300 litres /day**. After certain trial and error, the company improved the per tree production capacity of **Kalparasa** and its value added products like **Vinegar, Jaggery and Sugar**.



Future plan of company is to tap 8 healthy coconut trees of every farmer member of the company to collect around 4,000 to 5,000 liters of kalparasa from each farmer annually. Farmer will be paid Rs. 80,000- to 1,00,000 annually which will be paid on fortnightly basis. If farmer tap personally, he may earn upto Rs. 2.40 lakh /year. From 72 village level Coconut Producer Societies, 5,000 farmer's coconut garden will be selected in five years. Each Kalparasa technician will be able to tap 16 coconut trees from 2 farmers. Farmer may earn more than Rs. 20,000 per month, by working 4 to 5 hours/day. To tap 5,000 farmers coconut garden, company requires 2,500 Kalparasa Technicians and another 300 employments will be created like inspector, supervisor, tester, transporter and salesman. More number of secured "Green Collar Employment" will be created in villages which will help in reducing migration of youngsters to urban areas.

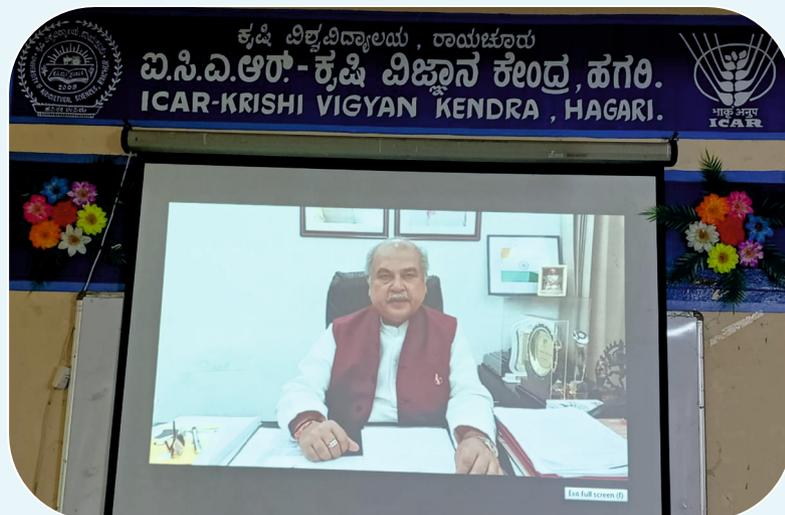
National Campaign on Poshan Abhiyan and Tree Plantation

POSHAN Abhiyaan is the Government of India's flagship programme launched by Hon'ble Prime Minister Shri Narendra Modi on 8th March 2018 to improve nutritional outcomes for children, pregnant women and lactating mothers and adolescents. The main objective of the program is to reduce the level of under-nutrition and also enhance the nutritional status of children in the country. The programme has specific targets for reducing stunting, anaemia, under-nutrition and low birth weight. The mission leverages technology and convergence between various modules and departments.

On this occasion, live streaming of the address of the Hon'ble Union Minister for Agriculture and Farmers Welfare, Govt. of India, Shri Narendra Singh Tomar from KVK Morena, Madhya Pradesh was also arranged to acquaint the participating farmers with all the proceedings of the event. KVKs conducted activities like awareness on nutri-garden and bio-fortified varieties, Interaction on nutri-cereals and their role on human health, distribution of saplings of fruit/agro-forestry trees and seed packets of vegetables

To commemorate "National Campaign on Poshan Abhiyan and Tree Plantation" on 17 September 2022, the KVKs under ICAR-ATARI Bengaluru has observed public awareness meeting by inviting the Public Representatives, scientists, experts and farmers including farm women at the KVK campuses. The focus of Abhiyaan was to lay emphasis on nutritional status of adolescent girls, pregnant women, lactating mothers and children from 0-6 years age. The programme, demonstrated use of technology, convergence and community involvement with a targeted approach strives to reduce the level of stunting, under-nutrition, anemia and low birth weight in children, as also focus on adolescent girls, pregnant women and lactating mothers, thus holistically addressing malnutrition. KVKs distributed the saplings of fruit/agro-forestry plants & seed packets of vegetable to farmers that was provided by IFFCO.

A total of 45 KVKs under ICAR-ATARI Bengaluru organized the event with a total 3880 number of farmer's participants. 5823 number of saplings and 3969 number of vegetable seed packets were distributed on the eve. 253 number of public representatives were present during the event out of which, one was MP and five were state ministers/MLAs with 219 number of other public representatives



ICAR – KVK Ramanagara bestowed with ICAR National Award

ICAR-Krishi Vigyan Kendra Ramanagara functioning under University of Agricultural Sciences, Bangalore and ATARI Zone XI bagged the National Award “Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protsahan Puraskar-2021” (2nd prize of Rs. 8.00 lakh). Hon’ble Union Minister for Agriculture and Farmers Welfare, Shri Narendra Singh Tomar ji presented the award in the presence of Hon’ble Minister of State for Agriculture and Farmers Welfare, Shri Kailash Choudhary ji Hon’ble Union Minister for Fisheries, Animal Husbandry and Dairying, Shri Parshottam Rupali ji, Dr. Trilochan Mohapatra, Secretary DARE and DG ICAR and Dr. A. K. Singh, Deputy Director General, ICAR on 94th Foundation Day of the Indian Council of Agricultural Research (ICAR) held on 16.07.2022 at AP Shinde Hall, NASC Complex, New Delhi. Dr. Rajendra Prasad, S., Vice-Chancellor, UAS, Bangalore and Dr. Savita S. Manganavar, Senior Scientist and Head, ICAR-KVK, Ramanagara received the award.



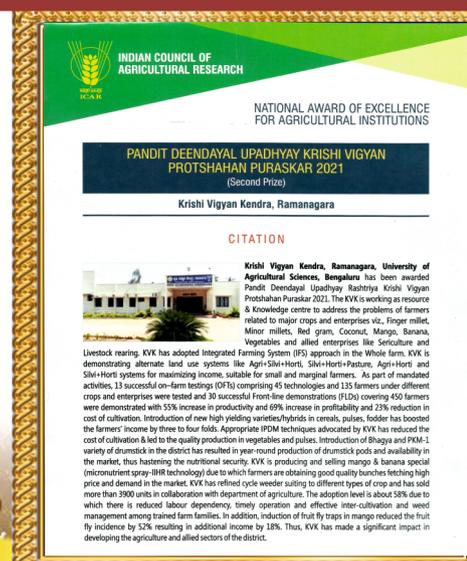
ICAR-KVK Ramanagara was established in 2010 at Chandurayanahalli on the Magadi-Kunigal highway. It is having 12.08 ha of land in which technology of integrated farming system has been adopted to demonstrate the concept of “seeing is believing”. KVK has 48 demonstration units namely crop museum, fodder cafeteria, silvi-agri-horti unit, livestock unit, hi-tech sheep/goat/ poultry rearing unit, vermicompost unit, nursery unit, medicinal block, hydroponics, mushroom and azolla production unit, micro-irrigation and fertigation unit, automatic weather station, rain water harvesting, borewell recharge unit, fish rearing unit, sales unit, poly house, nutri-garden model, solar power unit, high density mango unit etc. It is also having soil and water testing laboratory and custom hiring centre for promoting mechanization in agriculture. The scientist of KVK send mobile advisories (weekly twice) for 45548 farmers and reached more than 16000 farmers through whatsapp groups and facebook. Besides research papers and publications, the scientists have reached the farming community through extension literatures (214) apart from 77 radio/TV talks and 382 press coverage.

Major technologies promoted by KVK during last five years are given below:

- **Introduction of improved Finger millet varieties and mechanization:** Introduced varieties viz ML-365, KMR-301, KMR-630 and KMR-340 increased the yield by 10-15%. Popularization of seed cum fertilizer drill, finger millet reaper and multicrop thresher decreased the cost of cultivation by Rs. 6000 to 7000/ ha. The area spread is about 25280 ha.
- **Double cropping system:** Cowpea followed by ragi under double cropping, increased the system productivity by 36.7%. Income from double cropping system increased to the extent of 25 to 32%. About 35% (11200 ha) of the farmers adopted double cropping system under rainfed condition to utilise bimodal distribution of rainfall. Cultivation of leguminous crops like cowpea and field bean before ragi crop helped in sustaining soil fertility.
- **Wilt resistant redgram variety BRG-5:** BRG-5 was included in seed chain by KSDA as result of KVK demonstrations. More than 20% redgram growers started growing BRG-5 in the district since 2016. Area spread is 1150 ha and increased productivity by 40%. The farmers income increased from Rs.16,250 to 24,480 / ha.
- **Intercropping system:** Intercropping of redgram in groundnut and cowpea in redgram increased the system productivity by 25% with additional net returns of Rs. 10000 to 13000 / ha. Area under intercropping system increased to 1250 ha in groundnut and 900 ha in redgram.
- **Use of banana special:** The good quality bunches fetched good price and increased demand in the market. The extra yield (20%) due to banana special spray has earned an additional income (35%) to the farmer. The area spread is 50% and the farmers income increased from Rs.2.98 lakh to 4.25 lakh/ha.
- **Introduction of improved fodder varieties: DHN-6, CO-3, CO-4, CO-5, COFS-29, COFS-31, Chaya, Hedge Lucerne, DGG-1, BG-2:** Diversification in cultivation of fodder grasses and fodder legumes of multi-cut varieties has ensured the continuous availability of green fodder throughout the year. Area increased to an extent of 7500 ha, increased productivity by 40% and additional income by Rs.93,000 /ha /year. More number of farmers are going for dairy, sheep & goat farming as subsidiary activity throughout the year.

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ICAR – KVK Ramanagara bestowed with ICAR National Award (Continued from P.11)



- **Technology backstopping in mango from pruning to post-harvest branding and direct marketing:** The good quality fruits fetched best price and increased the market preference. There was 12 % increase in overall yield in the district. On an average there was increase in income by Rs 22000 per ha. The Area spread is to an extent of 11000 ha(15%-fruit fly traps, 30% -mango special). The farmers income increased from Rs.1,65,500 to 6,28,000 per ha through branding and direct marketing.
- **Composting of sericulture waste:** On farm test on composting of sericulture waste reduced the time taken for composting to 80 days from 250days using compost culture and waste decomposer. It also increased the quantity of compost produced. Around 48% of the sericulture farmers adopted composting methods developed by KVK Ramanagara.
- **Establishment of vermicompost units:** KVK has promoted the establishment of 1356 vermicompost production units with various capacities, with a production of 16272 tonnes/year, fetching a worth of Rs.130.2 lakh/year.
- **Skill development trainings:** Skill development training on “Scientific rearing of Sheep and Goat” with consultancy has resulted in establishment of 256 high-tech stall feeding units. The population of sheep and goat in adopted villages increased to 35600 gaining a net profit of Rs.1068 lakh/year



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

Agrisearch with a human touch

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