

## 14.



# Technology Assessment, Refinement and Transfer

Krishi Vigyan Kendras (KVKs) have taken up activities for assessment, refinement and demonstration of technologies/products under different agro-ecosystems developed by the National Agricultural Research System of the country. At present, 642 KVKs are functioning across the country under State/Central Agricultural Universities (435 KVKs), ICAR Institutes (55 KVKs), NGOs (99 KVKs), State Governments (35 KVKs), Public Sector Undertakings (3 KVKs) and Central/Deemed Universities and other organizations (15 KVKs). The activities of the KVKs include on-farm trials (OFTs) to identify location specific technologies in various farming systems; frontline demonstrations (FLDs); and training of farmers, farm women, rural youth and extension personnel. Besides, the KVKs also contributed for the development of contingent plans for drought and flood situations, and implementation through technical back-up to the extension system. To show potentiality of technologies in terms of technological inputs, information and knowledge, KVKs have served as the knowledge and resource centre at the district level in the country.

### Technology assessment and refinement

**Assessment:** During the year, 2,652 technology interventions were assessed across 4,003 locations by laying out 27,008 trials on the farmers' field on various crops under different thematic areas, namely cropping systems, drudgery reduction, farm machineries, integrated crop management, integrated disease management, integrated farming systems, integrated nutrient management, integrated pest management, integrated pest and disease management, integrated weed management, processing and value-addition, resource conservation technologies, seed/planting material production, storage techniques and varietal evaluation. Major crops included paddy, wheat, maize, *bajra*, sorghum, bengalgram, blackgram, greengram, redgram, groundnut, mustard, sesame, soybean, sugarcane, cotton, onion, tomato, brinjal, cowpea, okra, amaranthus, chillies, banana, mango, apple, *amla*, papaya, turmeric, potato, capsicum, cabbage, etc.

In livestock, 439 technology interventions at 622 locations covering 4,994 trials on animals under the thematic areas, namely disease management, drudgery reduction, evaluation of breed, feed and fodder management, nutrition management, fertility improvement, processing and value-addition, and storage technologies were taken up for assessment. The major livestock species included were dairy cows, buffaloes, sheep, goat, poultry birds, pigs and fisheries.

Women specific income generation technologies (205) related to technological empowerment of rural women were assessed at 394 locations covering 2,917 trials under the thematic areas, namely drudgery reduction, farm mechanization, health and nutrition, processing and value-addition, production and management, energy conservation, small scale income generation, and storage techniques. The major enterprises included mushroom, sericulture, vermicompost production, nutritional gardens, etc.

**Refinement:** Refinement of 265 technological interventions was carried out at 306 locations by laying out 1,593 trials in the farmers' fields under various thematic areas, viz. drudgery reduction, farm machineries, integrated crop management, integrated disease management, integrated farming system, integrated nutrient management, integrated pest management, integrated weed management, processing and value-addition, resource conservation technologies and storage techniques. Major crops included were paddy, wheat, *bajra*, blackgram, greengram, bengalgram, mustard, soybean, groundnut, sugarcane, cotton, tomato, onion, brinjal, chillies, *bhindi*, apple, *amla*, etc.

Technological interventions (39) in 43 locations were refined through 398 trials on livestock, poultry and fisheries under the thematic areas, viz. disease management, feed and fodder management, nutrition management and production and management. Major livestock enterprises included dairy cows, buffaloes, poultry birds, sheep, goat and fisheries.

In addition, five women specific income generation technologies were refined by conducting 32 trials in five locations under the thematic areas of drudgery reduction, health and nutrition, and small scale income generation.

### Frontline demonstrations

FLDs were conducted to demonstrate the production potential of the newly released improved crop varieties/production technologies in crops/animal husbandry and other agricultural enterprises. For the benefit of farmers/personnel involved in transfer of technologies, on-site trainings and field days were also organized at the demonstration sites

During the year, 98,624 demonstrations covering 52,326 ha were organized. Of these, 90,974 (92%) demonstrations covering 47,001 ha were on cereals, millets, oilseeds, pulses, commercial crops, fibres, spices, medicinal, plantation, fodder, horticultural crops, etc. For promoting hybrids cultivation 7,650 demonstrations covering 5,325 ha were conducted in cereals, millets,





pulses, oilseeds, etc.

**Cereals:** Demonstrations (27,175) covering 8,708 ha were organized in rice, wheat, maize, barley, etc. Maize recorded an increased yield of 48.44% over farmers checks followed by wheat (30.1%).

**Millets:** Demonstrations (2,861) covering 1,089.83 ha were organized to show the production potential of millet crops, viz. sorghum, barnyard millet, finger millet, etc. The increase of 32.8% yield was recorded over local checks.

**Oilseeds:** During the year, 16,485 demonstrations were conducted on oilseed crops, viz. groundnut, sesame, soybean, castor, linseed, niger, etc. covering 6,515 ha. The increase of 34% yield was observed over farmers' practices.

**Pulses:** Demonstrations (22,146) covering 7,439 ha were conducted for pulse crops like pigeon pea, blackgram, lentil, pea, greengram, and increase in yield was 36% over local checks.

**Commercial crops:** Under commercial crops, 3,149 demonstrations were organized covering 7,808 ha. Of these 2,411 (77%) covering 1,534 ha were on cotton crop and rest on sugarcane and mulberry crops. The increase in yield of cotton crop was 11% over farmers' practice.

**Fodder crops:** FLDs (2,119) on fodder crops like berseem, sorghum, maize, lucerne and pearl millet were conducted covering 458 ha; the increase in yield ranged from 10% in lucerne to 90% in *bajra* over farmers' practices.

**Horticultural crops:** A large number of demonstrations (14,406) were organized on horticultural crops. Of these, 10,891(76%) were on vegetable crops, 2,581(18%) fruit crops, 484 flower crops, 335 plantation crops, and 115 on medicinal and ornamental crops. The yield increase ranged from 27% in fruit crops to 37% in medicinal and aromatic plants over farmers' practices.

**Hybrids:** To demonstrate the production potential of hybrids, 7,650 demonstrations covering 5,324.66 ha were conducted for cereals, commercial crops, fodder hybrids, fruit and vegetable hybrids, millets, oilseeds such as groundnut, mustard, sesame, etc. by 428 KVKs. The yield increase ranged from 36 to 41% in cereal crops, while in cotton the increase yield of 29% was observed. In fodder crops, increase yield of hybrid Napier was 42% and of pearl millet hybrid 54% over farmers' cultivars.

An yield increase of 73% was recorded in papaya hybrid over farmers' practices. In vegetable hybrids highest yield of 124% was recorded in capsicum, and least 20% in bitter gourd crop.

### Capacity development

Training programmes (52,437) were organized wherein 14.48 lakh farmers/farm women, rural youth and extension personnel participated.

**Farmers and farm women:** Training of 11.74 lakh farmers and farm women (41,490) was organized on various technologies to update their knowledge and skills. The courses were on productivity enhancement of field crops (21%), horticultural crops (15%), empowerment of rural women (14%), plant protection (15%), livestock

production and management (11%), soil health and fertility management (9%), farm machinery tools and implements (5%), capacity building and group dynamics (4%), production of input at site (1%), fisheries (2%) and agro-forestry (3%). Out of these courses, 37% were conducted on campus (12,447) and 63% were organized off-campus (29,043). The participants included 2.54 lakh farm-women in the crop production training. Among the crop production technologies, 23.64% of the training courses were on integrated crop production technologies, followed by weed management (9.72%) and seed production (7.81%). Out of 6,430 training courses on horticulture, 3,371 were on vegetable crops, 1,871 on fruit crops, 285 on spices, 280 on ornamental, and 188 courses on medicinal and aromatic crops.

**Rural youth:** Skill-oriented training courses (7,112) were organized for 1.75 lakh rural youth, including 61,008 young women (35%) during the year. These courses were on integrated farming, mushroom production, value-addition, dairy farming, seed production, vermin-culture, nursery management of horticulture crops, bee-keeping, protected cultivation of vegetables, repair and maintenance of farm machinery implements, sheep and goat rearing, poultry production, production of organic inputs and small-scale processing.

**Extension personnel:** Capacity development programmes (3,835 courses) were conducted for 1.99 lakh extension personnel, out of which 23,636 (23.85%) were for women. These courses were organized for extension functionaries working in government and non-government organizations who were directly or indirectly related with the development of agriculture sector. Training was imparted in agricultural technologies related to productivity enhancement in field crops, integrated pest management, integrated nutrient management, group dynamics and farmers' organization, management of farm animals, rejuvenation of old orchards, women and child care, livestock feed and fodder production, protected cultivation technology and ICT applications.

**Sponsored training:** Sponsored training courses (7,246) were conducted benefiting 2.36 lakh farmers and farm women, rural youth and in-service extension personnel. Most of the sponsored courses were related to on-site input production, economic empowerment of women, processing and value-addition, methods of protective cultivation, farm machinery tools and implements, fisheries management, household nutritional security, animal nutrition management, animal disease management, fisheries and drudgery reduction for women.

### Extension programmes

For creating awareness among farmers about improved technologies and to provide timely advisory to farmers, KVKs organized different extension programmes. A total of 6.46 lakh extension programmes/activities in the form of advisory services, diagnostic and clinic services, celebration of important days, exhibitions, exposure visits, ex-trainees *sammelan*, farm science club. Conveners' meet, farmers' seminar, farmers visits to





KVK, field days, film shows, group meetings, *kisan ghosthi*, *kisanmelas*, lectures delivered as resource persons, *mahila mandals* conveners meetings, method demonstrations, plant/animal health camps, scientists' visit to farmer's field, self help group meetings, soil health camps, soil test campaigns, workshops and others were organized which attracted the participation of 102.39 lakh participants of which 98.79 lakh were farmers and 3.60 lakh extension personnel. The KVKs also organized 0.86 lakh extension programmes through electronic and print media to have wider coverage in the districts. These included electronic media in the form of TV programmes, radio talks, CDs/DVDs, extension literature, newspaper coverage, popular articles, leaflets, folders and books/booklets.

#### KVK conference

The 9<sup>th</sup> National KVK Conference was inaugurated by Hon'ble Prime Minister Shri Narendra Modi on 25 July 2015 at Patna. Prime Minister emphasized upon hastening lab-to-land process and appealed for bringing in four colour revolution, i.e. Green, Blue, White and Saffron for all round development of the country. On this occasion, four schemes namely Farmer FIRST, Attracting and Retaining Youth in Agriculture (ARYA), Mera Gaon Mera Gaurav and Student Ready were launched for enhancing farmer-scientist interface and development of skills and entrepreneurship in youths reforms.

#### Kharif and Rabi Kisan Sammelan

*Pre-kharif kisan sammelans* were organized by 330 KVKs with the participation of public representatives. KVKs organized film shows, provided extension literature related to agricultural technologies, displayed exhibits, posters, photographs, digital prints, display boards, sample trays, etc. for dissemination of information developed by ICAR Institutes/SAUs to the farmers and other stakeholders. During *rabi* season, it is planned to conduct the interface and exhibition by 500 KVKs.

**Production of technological products:** KVKs produced large quantity of technological products like seeds and planting materials of improved varieties and hybrids, bio-products and elite species of livestock, poultry and fish which benefited 31.29 lakh farmers in the country.

**Seeds:** During the year, 1.96 lakh q seeds of improved varieties of cereals, oilseeds, pulses, commercial crops, vegetables, flowers, fruits, spices, fodder, forest species, medicinal plants and fibre crops were produced and provided to 3.28 lakh farmers.

**Planting materials:** In all, 228.75 lakh quality planting materials of elite species of commercial crops, vegetables, fruits, ornamental, medicinal and aromatic crops, plantation crops, spices, tuber crops, fodder and forest species were produced and provided to 18.38 lakh farmers.

**Bio-products:** Bio-agents, bio-pesticides, bio-fertilizers, vermicompost, mineral mixture etc. were produced and supplied to the extent of 16,406 q benefiting 9.39 lakh farmers.

**Livestock, poultry and fish fingerlings:** Improved breeds of cow, sheep, goat, buffalo and breeding bull were produced and supplied to 1,341 farmers. Different strains/breeds/eggs of poultry birds (chickens, quails, ducks and turkey) were provided to 17,630 farmers. Improved breeds of pigs were provided to 296 farmers. KVKs also enabled 19 farmers to establish rabbit rearing units by providing 99 rabbits. Fish fingerlings (116.86 lakh) were produced and supplied to 2,647 farmers.

**Soil, water and plant analysis:** Samples (3.35 lakh: soil, 2.59 lakh; water, 0.60 lakh; plant, 0.15 lakh, and manure, 0.003 lakh) were analyzed covering 2.72 lakh farmers belonging to 0.54 lakh villages and the revenue generated was ₹ 203 lakh.

**Rainwater harvesting:** A total of 355 training courses and 1,157 demonstrations were conducted and 5.01 lakh planting materials were produced. Further, 40,553 farmers and 1,871 officials visited these units and got



Pre *kharif* mela at KVK, Balaghat, Madhya Pradesh.



acquainted with the system.

**Technology week:** Technology week, under public-public and public-private partnership mode, was organized by KVKs benefiting 16.38 lakh farmers, farm-women, extension personnel, rural youth and members of self help groups. The events included 22,279 extension activities such as seminars, skill demonstrations, film shows, field visits, demonstrations, exhibitions and scientist-extension personnel-farmer interactive sessions.

#### Kisan mobile advisory

Kisan mobile advisory (KMA), an initiative by the ICAR is providing timely and need based information to farming community. KVKs provided service through various service providers. Information on weather, market, various farm operations, outbreak of pest and disease incidence and their control measures are given to farmers through Short Message Service (SMS). During the year, 93,949 short text messages, 14,788 voice messages and 1,180 both SMS and voice messages were sent to benefit 223.94 lakh farmers on various aspects of agriculture, horticulture and animal husbandry, weather forecast, and pest and disease control by 557 KVKs.

**Technology demonstration for harnessing pulses productivity:** Demonstrations (8,727) covering 4249.97 ha were laid out on mungbean (1,299 ha), urdbean (741 ha), pigeon pea (563 ha), chick pea (1,347 ha) and lentil (168 ha) showing productivity gains of 50.12, 73.69, 70.73, 55.72 and 55.77%, respectively, over local checks.

**Demonstrations on climate resilient technologies:** Under the sub theme-Technology Demonstrations and Dissemination for Climate Resilient Agriculture, about 1.0 lakh farmers were covered in 132 villages. Integrated packages of proven technologies were demonstrated in one village in each district for adaptation and mitigation of the crop and livestock production system to climate variability based on the available technologies. During the year, 100 KVKs carried out 12,070 demonstrations on natural resource management covering 6,968 ha, 12,070 demonstrations on crop production technologies covering 4,450 ha and 1,814 demonstrations on fodder and feed production covering 682.18 ha. About 17,315 animals/birds belonging to 3,092 farmers got benefited from the demonstrations related to livestock and fisheries. Capacity-building interventions and the extension activities like exposure visits benefited 154,024 farmers.

**Technological backstopping:** The Directorate of Extension (DEs) of SAUs/CAU organized 192 capacity development programmes for updating the technical knowhow of staff of Krishi Vigyan Kendras (KVKs).

Besides, the DEs also organized 169 workshops and meetings for effective implementation of programmes of KVKs. The officials of these Directorates made 1,943 visits to the KVKs during Scientific Advisory Committee meetings, Field days, Technology Weeks, Workshop/seminar, Training programmes, etc. to review and monitor the activities of KVKs in the operational areas of respective directorates.

Likewise, the Zonal Project Directorates upgraded the knowledge and skills of 3,182 staff of KVKs by arranging

76 capacity development programmes at various SAUs and ICAR Institutes in the areas like, application of ICT, extension strategies for small farm development, etc. Awareness programme on protection of plant varieties and farmers' rights were conducted at KVKs in collaboration with PPV and FRA.

#### Agricultural Technology Information Centres

Agricultural Technology Information Centres (48) in the country served as single window delivery systems by providing technology information, technology services and technology inputs to the farmers. In all, 4.99 lakh farmers visited the ATICs for the technological solutions during the year. Technological information was provided to about 1.31 lakh farmers both through print and electronic media. Likewise, 2.67 lakh farmers got quality technological inputs namely, 48,550.87 q seeds, 22.99 lakh planting material, 1984 livestock, 0.27 lakh poultry birds and 1076.03 q bio-products. Besides, 7.28 lakh farmers were benefited by technological services like, soil and water testing, plant diagnostics, veterinary advisory services, soil health cards etc. were provided to farmers.

#### Zone 1

##### Mitigating the menace of bakane disease in *basmati* paddy in Delhi

Farmers started cultivating paddy variety Pusa 1121 in place of Pusa Basmati 1 in 2008, because of better yield, grain quality and price realization. However, this variety is susceptible to bakane disease. By 2010, the bakane disease incidence in Pusa 1121 variety at farmers' field was as high as 80%. FLDs, training programmes for paddy growers, method demonstrations and about 300 farm advisories through field visits, farmers' visit to KVK, and mobile advisory were synergized to tackle the bakane disease problem in paddy in Delhi. Farmers were made aware to use good quality seed from reputed producers and adopt seed, seedling and soil treatment for effective management of bakane disease. As a result of these efforts of Ujwa KVK, about 70% farmers of Delhi adopted seed/seedling treatment of paddy with chemical/bio fungicide in 4,250 ha area. The bakane disease in paddy has reduced from 80% in 2010 to 15% in 2014 with lower intensity and paddy growers (70% farmers who have adopted seed and seedling treatment in raising paddy crop) are harvesting additional grain of 5.03 q/ha.



Activities on bakane disease management organized by KVK, Delhi.



## Success stories

### Empowering dairy farm women

The importance of group approach for diffusion of scientific knowledge was channelized through identified 18 SHGs each comprising farm women interested in dairy farming during the last three years in Kullu district. One of the SHGs of 25 farm women was facilitated to get loan of ₹ 1.00 lakh to purchase high yielding animals and construction of semi *pucca* animal sheds under the technical guidance of KVK. The performance indicators like calf mortality (decreased from 15-20% to 5-7%), age of puberty (reduced from 24.8 months to 16.42 months), age at first conception (reduced from 26.86 months to 18.28 months), milk yield per lactation (increased from 1,500-2,000 litres to 2,200-3,000 litres) and calving interval (reduced from 2.89 years to 1.23 years) showed positive trends leading to increased income of the dairy farm women. This group is currently procuring 800-1,000 litres of milk daily involving 55 other farmers of the nearby villages and is selling to the milk cooperative society. The farmers get the most reasonable rates of the milk through the society. The milk federation is also supporting by supplying quality fodder seeds, concentrate ration at subsidized rate to the women farmers. They have gained confidence that with their own management skills, they can bring economic changes in their own life.



A view of dairy farming by a SHG

## Zone II

### Livelihood through integrated farming system

Shri Ajeet Kumar, a youth from Balia, Bihar having poor economic condition was motivated to adopt agriculture as mainstay of livelihood by KVK, Kishanganj. He hired 4.0 acres of land on lease for ₹ 1.75 lakh for integrated farming of makhana-cum-fish culture. He obtained capacity building training and technological support from the KVK and other institutions on fisheries and poultries, makhana production, jute and vegetable production beside integrated crop management. Mr Ajeet Kumar established a fish pond of 1 acre land, poultry farm with 1,200 birds, teak plantation with 400 plants and papaya nursery with Pusa dwarf varieties, backyard poultry farming with 100 Vanraja and Grampriya breeds, pigeon farming with 40 birds and goat farming with 8 Black Bengal breeds. Currently, he earns about ₹ 6 lakh annually through the integrated farming of makhana-cum-fish culture and other enterprises at his farm. He is also a member of Matasya Jeevi Sahyog Samiti and is continuously engaged in motivating other farmers for adopting new technologies in agriculture and allied sectors.

### Large scale adoption of TPS technology in West Tripura

KVK, West Tripura, implemented production of seedling tubers in cooperative farming mode in 17.5 ha involving 182 farmers in six clusters of villages. KVK organized an awareness programme on potato tuberlet production from TPS in the KVK campus in which 98 potato growers from the nearby villages participated. Training was provided to selected beneficiaries on different aspects of TPS cultivation including integrated pest and disease management, postharvest handling and treatment of seedling tubers etc. Besides field visits, weather based agroadvisory services through text messages were regularly provided to the farmers on plant protection measures, especially from blight. The total quantity of seedling tuber produced was 112 tonnes and the quantity of seedling tuber supplied to the Tripura Horticulture Cooperation Limited was 103 tonnes from the farmers' fields. As a result, the non-TPS areas could also be brought under TPS cultivation. Approximately 70% area of potato cultivation in the district was brought under TPS resulting in increased potato production.



Demonstration of TPS technologies

## Zone V

### Foxtail millet as climate resilient crop in South India

Yagantipalle village, Banaganapalle Panchayat, Banaganapallemandal with 70% of rainfed agriculture was selected for implementing NICRA project. *Desi* cotton and redgram were the main crops grown during *kharif* and sorghum and sunflower in *rabi*. Most of the crops get affected with late onset of monsoon followed by dry spells during critical crop growth periods, which in turn severely affect yield. The short duration millets, viz. Foxtail millet SIA 3085, Suryanandi varieties having 70-75 days duration and tolerance to drought and downy mildew were introduced in place of sorghum and *desi* cotton in 25 acres in 2011 *kharif*. Onset of monsoon was late and the crops experienced prolonged dry spells during growth period. Cotton could not be taken up and sorghum was sown but it was affected with terminal



A view of foxtail millet crop in the field.



moisture stress. These varieties of *Setaria* (KORRA) could escape drought due to its shorter duration. The area of foxtail millet in the village is more than 300 acres at present. With the availability of quality seed with seed banks at KVK, NICRA seed farmers and RARS, the crop was taken up in surrounding villages and mandals where there is late onset of monsoon and the area of crop increased tremendously.

## Zone VI

### Protected vegetable cultivation for profitability

Ms Patel Sagunaben Dipakbhai from Israma village, Petlad Taluka, Anand, obtained training of horticulture at KVK Devataj. Initially she started cultivation of capsicum (chilli) in net house of 10 guntha area, in which drip irrigation with mulching like modern technology was also used. Besides that in fellow land without cultivation she started growing seedlings in plastic tray filled with cocopit and perlite like medium in small scale. After success, she started it commercially as business to raise the seedlings of vegetables in trays for surrounding village farmers @ 40 paise/plant. She realized good income source from this business and established green house in 10 guntha and net house in 40 guntha area and started cultivation of raising seedlings, colour capsicum chilli and cucurbit like horticultural crops.



A view of vegetables grown in green house and net house.

## Zone VII

### Improved vegetable farming in barren land under drip irrigation

KVK, Seoni, provided technical guidance for growing nursery management, planting, fertigation schedule and insect pest management for improved hybrids of vegetables (tomato, chilli and capsicum) coupled with introduction of drip irrigation system in more than 150 ha. Identified area was linked with subsidy (70%) from Horticulture Department, Seoni. Due to KVK



A view of vegetable farming in barren lands

interventions, there was increase in area up to 4,798 ha for growing improved variety/hybrids resulting in enhanced productivity to 179 q/ha and increased income of ₹ 40,000-45,000/annum.

### Lac cultivation for livelihood security of tribes

Krishi Vigyan Kendra, Rajnandgaon has started project on modern methods of lac cultivation for livelihood of tribal's village Kektitola, Ambagarhchowki block, Rajnandgaon district. Farmers have been cultivating lac from many years but production was very low. KVK, Rajnandgaon implemented lac project with identification of host trees, with formation of SHGs by participatory approaches. The scientific method of lac cultivation i.e. proper pruning of lac host trees, timely tying up of brood lac, use of 60 mesh nylon *jaali*, spraying of insecticides as per requirement, and timely cutting of lac after maturity led to increased yield of lac.

Total number of palas trees were 260 and *ber* tree was nil for lac cultivation before inception of this project and after the project, there are 3,835 palas and 365 *ber* trees. In traditional farmers' technique, production was 1.25 kg/plant in palas and nil in *ber* and after the scientific intervention, it increased up to 3 kg/plant in palas and 3.5 kg/plant in *ber*. Total production of lac in village before the project was only 200 kg but after implementation of project, it increased to 11,000 kg in palas and 1,200 kg in *ber* trees. After KVK intervention the farmers of village Kektitola were capable to produce quality broodlac for their self and sale purpose.

Scientific methods of lac cultivation were adopted by making 15 SHGs at village level comprising 10 members in each group thus benefiting 150 families of the village.



Brood lac tying

## Zone VIII

### Promoting entrepreneurship by adding value to finger millet

Finger millet is a major staple food crop of Chikkaballapur district. KVK, Chikkaballapur is conducting skill training on value-addition to finger millet. Smt Roopa Rajendra along with five others came forward to take up processing and value-addition to finger millet as an entrepreneurial activity. She established a small scale processing and value-addition unit in August 2013 and obtained license for sale of value-added finger



A view of ragi products production unit.

millet products under the technical guidance of KVK and the financial support of a bank. The major value-added products produced from finger millet in the unit are *malt*, *chakkuli*, *ladoo* and *hurihittu*. At present, Smt Roopa is involved in preparation and marketing of finger millet *malt* with different flavours, *hurihittu*, *chakkuli*, and *ladoo* and is selling them through her own selling points and mobile sales van arranged. The monthly average production of the products is around 350 kg with a net profit of ₹ 30,000-40,000.

#### **An all-women food processing company re-writes story of women empowerment**

KVK, Palakkad provided technical guidance to the group of 20 women who had established a food processing unit, known as Aiswaryasree Kudumbasree. The unit was modernized with the state-of-the-art machinery including pulveriser, roaster, blender, sealing machine etc. and all 20 women are employee-cum-



A view of Aiswaryasree Kudumbasree unit.

#### **Soil Health Cards**

The KVKs (609) contributed significantly in collecting and analyzing soil samples and distributing soil health cards (2.09 lakh) to farmers on the occasion of World Soil Day on 23<sup>rd</sup> November 2015. The functions were attended by Hon'ble Ministers of Central Government (16), Chief Ministers (3), Members of Parliament (95) and Members of Legislative Assemblies (143) at different locations.



#### **Jai Kisan Jai Vigyan**

To commemorate the great contributions of Former Prime Minister Chaudhary Charan Singh and Shri Atal Bihari Vajpayee in agriculture, the week (23–29, December 2015) with their birthdays was celebrated as 'Jai Kisan Jai Vigyan' week with organization of farmers-scientists interface, demonstration of technology and other related programmes of Agricultural Universities, ICAR Institutes and KVKs across the country.



shareholders of this unit. The major food products of the unit are puttu rice flour, chembaputtu rice flour, pathiri and idiyappam flour, jam, squash, and spice mixes and are marketed under the brand name "Nellara". Now the unit has an annual turnover of ₹1.5 crore. Every year the group is able to earn a dividend of ₹ 20 lakh of which ₹ 13 lakh is divided among members. Each member is able to draw ₹ 6000/month as salary and a bonus of ₹10,000 at the end of financial year. An allowance of ₹ 1,000 is given for all members during major festivals. Recently the unit has added the preparation of health food mix "Teen Plus" under the technical guidance of KVK. More than 5.00 tonnes of "Teen Plus" was supplied to different *Anganwadis* of the district. Aiswaryasree Kudumbasree participates in exhibitions and melas organized by different organizations.

