



# TAMILNADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY

## DIRECTORATE OF EXTENSION EDUCATION, CHENNAI

### ICAR-KRISHI VIGYAN KENDRA, NAMAKKAL - 637 002

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Krishi Vigyan Kendra, Namakkal, a centre for transfer of technologies from lab to various groups like Farming Community, Self Help Groups, Rural Youths, Extension Personnel etc., through organizing various events like trainings, On Farm Testing, Front Line Demonstrations and Advisory services regularly. To impart the scientific skills and knowledge among the farm women, farmers & physically challenged people and to adopt the scientific technologies in their farms, KVK has conducted various training programmes, awareness campaigns, exhibitions, demonstrations, field days and camps during the period. The summary of the works done in April to September 2018 is presented hereunder.

#### TNLDA sponsored One day farmers fair on “Scientific Management of Bovine Breeding through Technological Backstopping”

Namakkal KVK has conducted TNLDA sponsored farmers campaign cum exhibition on “Scientific Management of Bovine Breeding through Technological Backstopping” at Mettala of Namakkal District on 28.08.2018 for the dairy farmers of Namagiripettai block. Dr.V.P.Ponnuvel, Joint Director of Animal Husbandry presided over the programme and current year schemes of the Dept. of Animal Husbandry were discussed with the farmers. Technical lectures on bovine breeding delivered by Dr.M.Selvarasu, Professor & Head, Department of Veterinary Gynaecology and Obstetrics and nitrate poisoning identification methods and prevention delivered by Dr.C.Kathirvelan, Assistant Professor, Dept. Animal Nutrition of VC&RI campus, Namakkal. A total of 504 farmers and 28 officials participated. 11 exhibition stalls on the theme of bovine breeding management were displayed. Demonstration on Clean Milk Production and nitrate poisoning was done. The feedback of the programme collected from the farmers. The farmers queries were answered by the experts and further interventions in dairy management activities in DFI village were finalized.

#### Swachhta Hi Sewa activities

KVK, Namakkal has conducted Swachhta Hi Sewa activities from 15.09.2018 to 02.10.2018 at different places of Namakkal district. Awareness drive was conducted through various modes like campaign, demonstrations, regular advisories, and training programmes of this Kendra.





KVK officials initiated the campaign first at KVK building on 15.09.2018 by cleaning the bushes in the streets, drains and back alleys & other premises of KVK and the same done at Vadavathur and Jambumadai village of Erumaipatti block on 24.09.18 & 25.09.18 respectively and Vazhavanthikombai village of Sendamangalam block on 28.09.18. Also organized, awareness drive on collection and separation of degradable and non degradable waste by village people at Bodinaickanur village of Sendamangalam block on 18.09.2018. Awareness drive on better sanitation, practices of using a toilet, hand washing and hygiene awareness was carried out at Ladduvadi village of Namakkal block on 17.09.2018 and Aniyapuram pudur village of Mohanur block on 20.09.18. Farmers were also educated the building of composting pit with residues left out in the farm and households, composting pit was developed & demonstrated at KVK farm on 27.09.2018.

### **Celebration on National Nutritional week**

N a t i o n a l  
Nutritional Week 2018  
was celebrated with 85  
farm women at  
Aniyapuram Pudur  
village of Mohanur block  
on 06.09.2018 (03.09.18



to 07.09.18). Awareness created against malnutrition in children & farm women and role of nutritious food in human health was discussed. The role of nutrigrains, vegetables and fruits in human health and nutritional kitchen garden for year round quality organic vegetable production in homestead garden were educated to them. Distributed 5 different vegetable seeds to each farm women to develop nutritional garden. Also quality organic foods (Foxtail millet laddu, boiled chenna dall and black gram gruel) were served to all participants.

### **ATMA sponsored Farm school on “Scientific Dairy Farming”**

KVK, Namakkal has initiated the Farm School on “Scientific Dairy Farming” for a period of 3 months with 25 farmers at Kajakombai village of Erumaipatti block

under the financial assistance of ATMA, N a m a k k a l . O n 19.07.2018, the program was inaugurated by JDA, Namakkal. Pre evaluation of participant's



knowledge in dairy farming was assessed. Skills on animal selection, dentition and body weight measurement was imparted. Training on balanced feeding and its impact on production and productivity of dairy animal and skill training on low cost concentrate feed preparation was conducted for farm school participants on 25.07.2018. In third class farmers prepared and presented low cost feed formulation with locally available feed ingredients at Rs.17/kg and their formulation was assessed by Animal Nutritionst from VC&RI, Namakkal. Use of unconventional feed resources and feeding ration for high yielders at optimum price was dealt. Demo on enrichment of dry fodder with urea and common salt was conducted. 20 fodder samples and 25 water samples of farmers were assessed for nitrate toxicity on 01.08.18. In fourth class, Silage making with fodder and sugarcane slips was demonstrated to utilize the crop residues as livestock feed in lean season. The farmers presented their experiences in azolla production, breed characters and body weight measurement of dairy animals. Also farmers were imparted with clean milk practices and regular deworming and periodical vaccination to prevent disease occurrence in dairy animals. Identification of sub clinical mastitis using TNAU check SCC kit was demonstrated. Continued adoption of udder cleaning using KMnO4 by one of the trainee participant of farm school demonstrated the same and motivates the fellow trainees for clean milk production under fifth class on 31.08.2018. In sixth class, value addition of milk products was imparted at dairy plant of VC&RI campus. In this participants were imparted with skills of flavoured milk and khoa preparation on 05.09.18. Overall the trainees of Farm School were educated with scientific dairy farming technologies with clean milk production and processing.



## **Kisan Kalyan Karyashala (Farmers Welfare workshop) for doubling the farmer's income**

KVK, Namakkal scientists has participated in “Kisan Kalyan Karyashala (Farmers Welfare workshop) on doubling the income of farmers”



at 12 blocks namely Namakkal, Namagiripettai, Thiruchengode, Kabilarmalai, Pallipalayam, Vennandur, Mallasamudram, Paramathi Velur, Rasipuram, Sendamangalam, Erumaipatti & Mohanur of Namakkal. Guest lectures related to latest technologies for doubling the income of farmers like drip irrigation, climate resilient technologies and improving the livelihood through the allied sectors, integrated farming system were delivered to farmers. Thematic exhibition depicts the concept of doubling the income of farmers and efficient utilization of naturally available resources were also arranged and explained to the farmers.

## **National Innovation on Climate Resilient Agriculture (NICRA) - Annual Review and Action Plan Workshop**

Tamil Nadu Veterinary and Animal Sciences University, Chennai and Agricultural Technology Application Research Institute, Hyderabad jointly



organized NICRA Annual Review (2017-18) and Action plan (2018-19) workshop on 18.06.2018 to 19.06.2018 at Krishi Vigyan Kendra, Namakkal. Dr. C. Balachandran, Vice Chancellor, Tamil Nadu Veterinary and Animal Sciences University, Chennai delivered the chief guest address in the function. In his address he highlighted the role of KVK and TANUVAS for betterment of farmer's livelihood through Agriculture & its allied sectors. Dr. B. Venkateswaralu, former Director (CRIDA) and former Vice Chancellor, Vasantrao Naik Marthwada Krishi Vidyapeeth, Prabhani, Maharashtra delivered key note address. In his address he pointed

out the importance of saving water, sequestration of organic carbon and climate resilient practices for doubling the income of farmers under drought



situation. Dr. Y.G. Prasad, Director, ICAR-Agricultural Technology Application Research Institute (Zone-X), Hyderabad has given inaugural address and reviewed the works done in 2017-18 and suggested the needs for framing of action plan for 2018-19. Dr. N.K. Sudeep Kumar, Director of Extension Education, Tamil Nadu Veterinary and Animal Sciences University, Chennai welcomed the gathering and narrated the importance of NICRA scheme. Dr. J.V.N.S. Prasad, NICRA Co-Principal Investigator & Principal Scientist, CRIDA, Hyderabad, Dr. J.V. Prasad, Principal Scientist, CRIDA, Hyderabad and Dr. P. Ram Babu, Director of Extension Education, ANGRAU, Andhra Pradesh also participated and given remarks about NICRA scheme and future expectations in NICRA. Eleven KVKs from Tamil Nadu, Andhra Pradesh and Telungana were participated and presented their work done particulars during 2017-18 and future action plan for 2018-19. Field visit was organized on 19.06.2018 to NICRA villages of Namakkal district, Vadavathur & Jambumadai to observe the works implemented in NICRA village since 2011. Totally 32 personnel (Male - 23 nos. & Female - 10 nos.) were participated in the meeting.

## **Cross learning programme for newly recruited Subject Matter Specialists of Tirunelveli & Teni KVK**

Cross learning programme for newly recruited Assistant Professors of Tirunelveli, Teni KVKs and Orientation Training to Animal Science SMS of



KVK Ariyalur (CREED KVK) was conducted on 06.06.18 to 08.06.18 & 28.06.18 to 29.06.18 at KVK, Namakkal respectively.



Introduction of mandatory KVK activities and responsibilities, successful work accomplishments, instructional units, conduct of various training programmes, CFLD programme implementation, PPP mode schemes, revolving fund activities, register and record maintenance, additional responsibilities taken care by KVK scientists, process involved in selection of DFI village, conduct of baseline survey, data entry, analysis, and proposing plan of activities, routine, special and specific activities pertaining to scientist of KVK, the duties of farm manager and labour, wages management for revolving fund activities, experiences of climate resilient interventions under NICRA were dealt. Field visit was made to Vadavathur, jambumdai and unjapalayam villages with the trainees to show the results of the interventions (Integrated farming systems, crop diversification of jasmine, climate resilient groundnut variety with redgram, continuous green fodder production unit, cage system of poultry unit, slatted floor goat unit, vermicompost production, custom hiring centre of farm machineries, fish farming) made by KVK, Namakkal.

### **World Environment Day**

To commemorate the World Environment Day, 2018, KVK, Namakkal has conducted "Tree plantation and Ban plastic" programme at DFI village, Ganapathipalayam in association with District Forest Office, Namakkal. 100 tree saplings received from forest department were distributed to 50 farmers and motivated them to plant two trees per farm family for carbon sequestration. Dr.Kanchana Devi, IFS, District Forest Officer addressed the gathering about the tree plantation and plastic free environment. To curtail the use of plastic, KVK Namakkal stopped the use of disposable plastic cups and plates. Through this use of 500 cups and plates/month on an average has been reduced. Also to create burn free environment and to motivate the farmers to stop burning of crop residues, KVK, Namakkal established pit and heap method of



composting with crop residues as demo unit. 50 farmers of DFI village along with district forest officials were participated.

### **Special training on desi chicken rearing**

KVK Namakkal has conducted training programme on desi chicken rearing under the sponsorship of the scheme on, GOI-Dept. of Science & Technology, "Production of health promoting eggs from backyard poultry in Namakkal district" by the Department of Poultry Science. VCRI, Namakkal on 10.09.18 & 12.10.18 for 87 participants. In this programme, hands on training, demonstration on feed preparation & vaccination conducted. Visit to hatchery unit and poultry farms of VC & RI, Namakkal was made.



### **Village adoption for Doubling the farmers income (DFI villages)**

Ganapathipalayam, Moolakkadu and Ondikadai villages of Mohanur, Vennadur and Namagiripettai blocks were selected based on the cropping pattern. Base line survey was conducted and based on the results action plan proposed implemented for 2018-19 for achieving the sustaining farmers income.



### **On campus training programme**

From April 2018 to September 2018, thirty-seven on campus trainings were conducted at KVK, Namakkal with 786 farmers. Rice, pulses, oilseed, certified seeds production, tapioca, fruit crops, vegetable, small onion production technologies, soil fertility improvement, problematic soil





management, integrated nutrient management, sericulture farming, agro forestry system, mass production of organic pest repellent and mealy bug parasites, storage pest management, white pig rearing, desi chicken rearing, infertility management in dairy cattle, shrimp culture, murrel farming, gift tilapia culture, cage culture in fish farming, fish feed management were the major areas covered in these training programmes.

### **Off campus training programme**

Based on the need of farmers, location specific twenty one off campus trainings were conducted at farmer's field to propagate the technologies related to Agriculture, Horticulture, Animal Husbandry and Fisheries sectors with 504 farmers.



### **Zonal workshop**

Six monthly zonal workshops for agricultural department officials were conducted on 12.04.18, 15.05.18, 13.06.18, 17.07.18, 14.08.18 and 11.09.18 at KVK, Namakkal. A total of 215 extension officials were participated. Scientist of KVK, Namakkal were delivered the technical lectures related to the problems associated with specific seasons. Major field problem in different blocks of Namakkal district were discussed and suggestions were recommended.



### **Exhibitions conducted/ participated**

KVK, Namakkal has conducted two exhibitions during on campus training programme on desi chicken and TNLDA phase I at Minor Bakiyam Mahal, Mettla, Namagripettai on 15.05.2018 & 28.08.18 respectively. Totally 574 farmers were participated and benefitted in the exhibition. KVK Namakkal has displayed vaccines, feeds materials, fodder seeds, disinfectant kit and feed chart. Parambariyam organic producer organization

displayed organic dairy feeds and products. Velan Pudumai displayed machineries related to agriculture & allied sector, Polychem, Hindustan,



pharmaceutical Pvt firms displayed pharmaceutical products for livestock and Dept. of Nutrition, VC&RI campus, Namakkal arranged live demo to identify the nitrate poisoning in fodder crops and water content. KVK Namakkal has also participated in Kisan Kalyan Karyashala exhibition conducted by Department of Agriculture in 12 blocks of Namakkal district on 02.05.18, Agri Fair Index conducted from 13.07.18 to 16.07.18 at CODISSIA Hall, Kisan Samiriddhi-Farmers Fair for Prosperity 2018 from 24.08.18 to 26.08.18 conducted at CODISSIA Hall. Totally 6571 farmers were participated and benefitted. Fodder seeds & saplings, vegetable seeds, crop boosters, biocontrol agents, mineral supplementation for livestock and fish culture model and fodder production technologies were displayed in the event.

### **Soil & water analysis & issue of soil health cards**

Since April 2018 to September 2018, 226 soil samples & 164 water samples received and tested. Totally 236 soil health cards and 161 water health cards



issued to farmers with soil test based integrated fertilizer recommendation. To improve the fertility status of soil, farmers were advised to practice green manuring, biofertilizer & micronutrient application along with regular macro nutrient application.

### **Awards received by KVK farmer**

KVK Namakkal farmers Th. P. Allimuthu from Minnakal for Multigrafting in a single mango tree, Th. J.R. Dhanaraj from Kalkuruchi Vellalapatti for Value addition in Cassava by using Cassava chips making machine and Th.P.Saravanan from Ariyagoundampatti



for Organic cucurbitaceous vegetable cultivation were awarded best Innovator award during Farm Innovators Meet held at ATARI, Hyderabad on 14.04.2018.



Th. P. Ramasamy from Jambumadai received best innovative farmer award for adopting and popularization of improved livestock and fodder production practices viz., slatted goat shed, low cost dairy shed, fodder production and silage making at CRIDA foundation day held on 12.04.2018 at CRIDA campus, Hyderabad.

In addition, KVK, Namakkal has received participation certificate for fodder production technologies from ICAR-Sugarcane Breeding Institute, Coimbatore on 26.09.18 during Kisan Samridhi-Farmers Fair for Prosperity 2018 held at CODISSIA Trade Fair Complex, Coimbatore.

KVK, Namakkal has received award for best performance award for NICRA scheme and best poster presentation award for desi chicken rearing on 20.09.18 to 22.09.18 during Annual Review Zonal workshop for 2017 - 18 at ICAR-ATARI campus, Hyderabad.

### Exposure visit

Totally 1586 farmers and students were received exposure to this Kendra and got technical and practical guidance about the technologies available in instructional and demo units. 606 agri students of Agri College and Agri business unit, 65 students from Chittagong Veterinary and Animal Sciences University, Bangladesh, 14 staffs from Karur KVK, 36 staffs from Karnataka University of Agricultural Sciences, 935 farmers from various Districts of Tamil Nadu visited the



KVK during the last quarter.

### Interstate Exposure visit under NICRA

As a cross learning programme, KVK Namakkal has taken 11 progressive farmers of NICRA villages to an exposure visit for two days to Regional



Agricultural Research Station, Tirupati, RASS KVK Chittoor and Agricultural Research Station, Kadiri on 16.08.18 and 17.08.2018 to gain new knowledge in dry land agriculture.

On 16th the farmers visited RASS KVK, RARS and millet breeding stations at Tirupathi. The high yielding groundnut, black gram, green gram varieties suitable for dryland, portray nursery, high density moringa cultivation, SRI paddy, medicinal plants, groundnut seed processing unit, biofertilizer unit, farm machineries for dry land management, minor millet varieties and cultivation, performance of promising groundnut germplasm were new knowledge gained by the farmers. On the second day of the cross learning programme, the NICRA farmers of KVK Namakkal along with SMS Agronomy visited the NICRA villages Bhakarapet of RASS KVK Chittoor and ARS Kadiri on 17.08.2018. In Bhakarapet, the climatic resilient interventions like borewell point ground water recharge method, trenches across the slope in mango orchard for ground water recharge, polythene mulches in tomato and water melon, foggers for animal shed, azolla cultivation were seen. In ARS kadiri, new knowledge in high yielding and drought tolerant groundnut varieties suitable for dry land, intercultural operation methods, groundnut seed production methods, seed processing unit and disease management were gained by the farmers.






## Outcome of OFTs & FLDs 2017-2018

S. No.	Title of OFTS	Village, No. of trails & Area	Outcome
1.	Assessment of new paddy variety CO-52 through different system of cultivation	Perappansolai 5 nos. 1 ha	New paddy variety CO-52 recorded higher grain yield (7.40 ton/ha) under SRI Method compared drum seeder and traditional paddy cultivation (BPT 5204) practiced by farmers.
2.	Assessment of suitable single cut fodder sorghum varieties for rainfed condition	Kalkurichipudur 5 nos. 1 ha	CO-27 sorghum variety obtained higher green fodder yield (31.5 ton/ha) compared to other PC-23 (28.2 ton/ha). There was no incidence of pest and diseases during growing period.
3.	Assessment of performance of microbial consortia in tomato	Karkoodalpatti 5 nos. 1.2 ha	The Arkamimicrobial consortia treated plot was recorded highest average fruit weight (79.83 g), number of fruits per plant (96.29) and fruit yield (63.60 t/ha).
4.	Assessing the performance of carrot variety PusaRudhira in Namakkal District	Karkoodalpatti 5 nos. 0.4 ha	PusaRudhira recorded the highest leaf length / plant (23 cm and 38.5 cm) at 30 and 60 days after sowing, root tuber length (22.7 cm), weight of carrot with tops (327.4 gm) and weight of root tuber alone (151.1 gm).
5.	Assessing the performance of Coccinia varieties in Namakkal District.	Karkoodalpatti 5 nos. 0.2 ha	DRC2 recorded more number of laterals / plant (11) at 5 months after planting, the fruit length (7.5 cm), fruit diameter (3.1 cm) and average weight of the fruit (23.1g) and yield per ha (7.5 tonnes).
6.	Assessment of mastiguard efficacy in clean milk production	Kalagani 20 animals	In Mastiguard usage, the somatic cell count was very low (<50,000) and mastitis occurrence was nil. Additional average milk production of 0.75 ltr was also recorded as teat protect anti septic spray after milking closed the teat pores prevent excess calf feeding





## Success story

1.	Name & Address of the farmer	 <b>Th. P. Stalin S/o. Palaniyappagounder</b> 5/114, Notchipatti, Kalyani (Po), Namakkal (Tk & Dt) - 637 018. Mobile: 9994413749
2.	Type of farm	Certified Pulses seed producer (Green gram seed production - 4.0 acres, Black gram seed production - 4.0 acres)
3.	Income generated / annum	Rs. 3,04,000/- as a net profit.
4.	Innovative package of practice adopted by the farmer	<ul style="list-style-type: none"> <li>❖ Foundation seed production in pulses in every year.</li> <li>❖ Implemented solar light trap to monitor and control of pest population in pulses field.</li> <li>❖ Proper rouging during vegetative and flowering phase to maintain good genetic purity.</li> <li>❖ Mechanical harvest due to synchronized matured varieties (CO-8, VBN-8) to reduce cost of cultivation.</li> </ul>
5.	Technologies Practiced	<ul style="list-style-type: none"> <li>❖ Introduction of high yielding green gram varieties (CO-8) seeds–20 kg/ha.</li> <li>❖ Soil application of Trichoderma viride @ 2.5kg/ha Seed treatment with Pseudomonas fluorescence @ 10g/kg.</li> <li>❖ Seed treatment with Rhizobium biofertilizer@ 600 grams/8 kg seeds and soil application @ 1000 grams/ha.</li> <li>❖ Foliar spray of TNAU Pulse Wonder – 5.0 kg/ha.</li> <li>❖ Installation of Pheromone traps @ 12no/ha with lures 3 changes.</li> <li>❖ Recommended dose of NPK fertilizers (25:50:25kg/ha) + Sulphur - 20kg/ha.</li> <li>❖ Need based insecticides (Spinasad &amp; Imidacloprid / Neem oil)</li> </ul>
6.	Strategies adopted for control of disease	Adoption of scientific technologies to control of pest and diseases in pulses by application of bio pesticide, solar light trap, pheromone traps and fungicide to avoid economic losses.
7.	Number of employment created	240 Man days employment generated for farm women in that village.
8.	Tie up with other agencies	State Agricultural Department, KVK, Salem & TANUVAS.
9.	Economic empowerment of the farmer	He earned profit of 3.04 lakhs per annum in 8 acres by practicing seed production in green gram and black gram in 3 months period.

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From \_\_\_\_\_

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