Krishi Vigyan Kendra
Namakkal 637 002

Frontline Demonstrations (FLDs) 2023-24

S. No	Category/ Crop or enterprise	Title	Prioritized problem	Technology	Source of Technology	Status *	No. of Demo (replications)	Area (ha)/ units	Total cost involved (Rs.)	Team members involved	No. of demos targeted in DFI village (s)	No. of demos targeted under SC-SP
1	Cereal / Paddy	Demonstration of New Paddy variety – CO-56 with ICM Practices	Higher incidence of pests (Stem borer @ 5.2%) and diseases (Blast @ 9.1 %), obtained less grain yield (4850 kg/ha), Higher cost of cultivation (Rs.66250/ha), Poor tillers (12 nos) due to non adoptionof ICM Practices	Demonstration of New Paddy variety – CO-56	TNAU, Coimbatore, 2023	New	10	4	21650	Dr.P.Murugan Dr.S.Alagudurai	4	-
2	Millets / Sorghum	Demonstration of Dual purpose new sorghum variety K-13 in Namakkal	Less green fodder yield (8.6 ton/ha) and dry fodder yield (2.6	Demonstration of Dual purpose new sorghum variety K-13	TNAU, Coimbatore, 2023	New	10	4	17400	Dr.P.Murugan Dr.S.Alagudurai	-	5

		district	ton/ha) in existing variety (CO-4), lodged, Non availability of dual purpose sorghum variety & Alternate variety for sorghum CO-4.									
3	Minor Millets / Barnyard millet	Demonstration of new Barnyard millet variety ATL-1 and ICM Practices	Less grain yield in exiting traditional variety, Poor farm income in rainfed areas (Rs.16500/ha), lodged during monsoon period, Non availability of high yielding barnyard millet variety,	Demonstration of new Barnyard millet variety ATL-1	TNAU, Coimbatore, 2023	New	10	4	10400	Dr.P.Murugan Dr.S.Alagudurai	-	-
4	Tuber crops / Tapioca	Demonstration of New Tapioca variety – SreeReksha	Less yield (25.6 ton / ha) in existing tapioca variety, Less starch content (27%), Existing Varieties susceptible to cassava mosaic	Demonstration of New Tapioca variety – SreeReksha	ICAR-CTCRI, Trivandrum, 2018	New	10	2	25500	Dr.P.Murugan Dr.S.Alagudurai	5	-

			virus (84%), Mealybug (80%)									
5	Turmeric	Nutrient management in turmeric	Yellowing, poor growth and lesser rhizome yield	• plit application of soil test based nutrients through INM and foliar spraying with IISR special turmeric MN mixture- FYM - 25 t /ha, neem or groundnut cake - 200 kg/ha, 10 kg in each of Azospirillum and Phosphobacteria per ha to be applied at the time of planting, 25:60:18 kg of NPK per ha; • pply TNAU	IISR, Calicut, 2017 & TNAU, Coimbatore, 2020	New	5	2	8800	Dr.S.Sathya Dr.S.Alagudurai	-	-

				Micronutrient mixture @ 10kg/ha as in enriched FYM (1:10 ratio) at 50% basal and 50% on 90 DAP, 25:18 kg of N and K/ha applied on 30, 60, 90, 120 and 150 days after planting, & foliar spraying with IISR special turmeric MN mixture @ 5 g/L twice on 60 and 90 DAP								
6	Tapioca	Demonstration of INM in tapioca	Multinutrient deficiency, yellowing in 30 & 90 days, poor yield	• pply 25 t FYM/ha and incorporate at the time of planting. • iofertilizers @ 4 kg/ha, Apply	TNAU, Coimbatore, 2020	OFT converted to FLD	5	2	14450	Dr.S.Sathya Dr.S.Alagudurai	-	-

				45:90:120 kg NPK/ha as basal and 45:120 kg NK/ha 90 days after planting during earthing up. • pply 25kg ZnSo4, 20 kg S as gypsum, 10 kg Borax ha-1 as basal soil application. • oliar spraying with cassava booster @ 2,3 & 4 months after planting								
7	Bhendi	Demonstration on Foliar spraying with IIHR vegetable special on yield enhancement in Bhendi	Indiscriminate use of fertilizers lead to a multi micronutrient deficiency Zn (56%), B (29.5%), Cu	• pply Azospirillum and Phosphobacteria each at 2 kg/ha mixed with 100 kg of	IIHR, Bengaluru, 2016 & TNAU, Coimbatore, 2020	OFT converted to FLD	5	2	3950	Dr.S.Sathya Dr.S.Alagudurai	-	-

			(5%), Mn (2.6%) & Fe (2%), led to a decline fruit yield (16%)	FYM before sowing. • asal dose FYM @ 40t / ha, N @ 100 kg, P @ 100 kg and K @ 100 kg/ha as basal and100 kg N / ha 30 at days after sowing. • Foliar spraying with IIHR vegetable special @ 0.5 % on 30 DAS twice on 15 days interval								
8	Paddy	Demonstration on top dressing with Nano urea on yield of Paddy	• Demand for straight N fertilizers, Govt. invested 80% for procurement of urea, • less use efficiency in granulated urea (30-	• oliar spraying with IFFCO NANO urea (2-4 ml of Nano urea/Litre) through drone • asal N dose through DAP	IFFCO, New Delhi, 2021	OFT converted to FLD	5	2	8000	Dr.S.Sathya Dr.S.Alagudurai	-	-

			50%)	or Complex or Urea form Top dressing N through nano urea foliar sprays –1st spray at active tillering stage or 20-25 DAP; • nd spray 20-25 days after 1st spray or before flowering in the crop								

9	Maize	Demonstration of refined IPM Module for Maize Fall Armyworm	• Incidence of fall army worm (25%), • Lack of awareness on advanced IPM & variety	• pplication of neem cake @ 250 kg/ha at the time of last ploughing to increase the plant and soil health • order cropping with cowpea, gingelly/ redgram or sunflower in garden land conditions and fodder sorghum in dry land conditions @ three rows of selected crop • onitoring of FAW adults using pheromone	TNAU, Coimbatore, 2022	NEW	10	4	33500	Dr.C.Sankar and Dr.S.Alagudurai	-	-

				traps @ 12/ha • indow based application of insecticides • arly whorl stage (15 – 20 DAE): Chlorantraniliprole 18.5 SC @ 0.4 ml/ lit (or)flubendiamide 480 SC @ 0.5 ml/lit at early stage (15 - 20 DAE) followed by • zadirachtin 1500 ppm @ 5 ml/lit on need basis • ate whorl stages (35-							

				40 DAE): Emamectin benzoate 5 SG @ 0.4 g/lit or • ovaluron 10 EC @ 1.5 ml/lit or spinetoram 11.70 SC @ 0.5 ml/lit • Tasseling and cob formation stage (only if required): Spinetoram 11.70 SC @ 0.5 ml/lit (or) emamectin benzoate 5 SG @ 0.4 g/lit (which was not sprayed at late whorl stage)								
10	Groundnut	Demonstration of biological methods for the	• Incidence of color rot, and Root rot	• eed treatment	TNAU, Coimbatore, 2020	NEW	10	4	16000	Dr.C.Sankar and Dr.S.Alag	-	10

		Management of Soil-borne Diseases in Groundnut.	(25%), • Lack of awareness on advanced IPM & variety	with Trichoderma asperellum (4.0 g/kg) + Bacillus subtilis (10g/kg) • oil application of Trichoderma asperellum(2.5 kg/ ha)+Bacillus subtilis(2.5k g/ha) at last ploughing • oil application of T. asperellum (2.5 kg/ha) + B. subtilis (2.5 kg/ha) at 20-25DAS						udurai		
11	Ridge gourd	Demonstration of IPM modules against fruit fly in gourds	• Heavy infestation of fruit (25%), • Poor fruit set,	• Application of neem cake @ 100 kg per acre,	TNAU, Coimbatore, 2022	NEW	10	4	22250	Dr.C.Sankar and Dr.S.Alagudurai	-	-

			• Lack of awareness on advanced IPM & variety	• installation of cue-lure traps@ 10/ac and fruit fly poison bait • Neem oil 3% and Spraying of spinosad 45 SC @ 0.014 %								
12	Small Onion	Demonstration of IPDM in onion.	•Infestation of bulb rot (65%), •Incidence of Thrips – 35% •Lack of awareness on advanced IPDM practices and Identification of bulb rot infestation	• Seed treatment with thiophanate methyl @ 2.5 g/kg of seed; • soil application of Bacillus subtilis (Bbv 57) @ 1.25 kg/ha+ Trichoderma asperellum (Tv1) @ 1.25 kg/ha + VAM fungi @ 12.5 kg/ha + Azophos @ 4kg/ha	TNAU, Coimbatore, 2022	NEW	10	4	30500	Dr.C.Sankar and Dr.S.Alagudurai	-	-

				+neem cake @ 250 kg/ha; • Need based application of tebuconazole @ 1.5 ml/l for purple blotch disease management and need based application of 3.3% mefenoxam + 33.1% chlorothalonil SC @ 0.1% followed by 23.4% mandipropamid SC @ 0.1 % for downy mildew management . • Fipronil 80%WG @ 1.5g/10 lit. for thrips on need basis								
13	Dairy Farming		•Decreased milk	Popularization of TANUVAS	TANUVAS, Chennai,	New FLD	10	10	8000	Dr.N.Muthu	-	-

			production with decreased milk fat and SNF •High incidence sub clinical acidosis due to feeding of high fermentable carbohydrates to dairy animals. •Lack of scientific feeding in dairy cattle.	GRAND (Improved version) as feed supplementation in dairy cattle	2022 (Patented)					Samy&Dr. S. Alagudurai		
14	Desi bird farming	Demonstration of black soldier fly larvae as feed in backyard poultry	•High cost of concentrate feed for desi bird •Desi bird farmers unaware of black soldier fly larva as feed for backyard poultry. •Lack of knowledge in scientific		NDRI, Karnal-2016 NBIR-Bengaluru	New FLD	5	5	31000	Dr.N.Muthu Samy&Dr. S. Alagudurai	10	10

			feeding of desi bird									
15	Goat farming		• Low body weight and poor FCR in post weaning growing kids. • Delayed maturity in post weaning growing kids. • Lack of scientific feeding in small ruminants.	Demonstration of extruded feed for goat	TANUVAS, Chennai Feed Calculator, 2017	New FLD	10	10	20000	Dr.N.MuthuSamy & Dr.S. Alagudurai	10	10
16	Dairy farming		• Increased ecto-parasite infestation • Indiscriminate use of chemical ecto-parasiticide leading to chemical residues • Ecto-parasite acts as a vector many diseases like Lumby Skin Diseases and	Demonstration of Tick shield to control tick infestation in dairy animals	TANUVAS, TRPVB, Chennai, 2020	OFT Converted FLD	10	10	10000	Dr.N.Muthu Samy&Dr. S. Alagudurai	-	10

			protozoan diseases etc.,									
17	IFFS	Demonstration of Fish cum Duck integrated farming for higher return.	• Increasing fertilizer cost. • Increasing supplementary feed cost (account 60%). • Lack of knowledge on utilization of duck manure as fertilizer for fish culture	• ish gather duck droppings as direct food or consume spilled feed. • ucks consume mosquito larvae, tadpoles, dragon fly larvae and snails which also serve as vector for certain parasites • he dabbling habit of ducks increases the available oxygen in pond water.	CIFA-2018 , Bhubaneswar	New	3	2	18500	Dr.S.Paulpandi & Dr.S.Alagudurai	-	-
18	Pearl spot	Demonstration on Pearl spot (Etroplus suratensis) culture in fresh	• Lack of fish fingerlings. • Lack of scientific culture and	• he pearl spot is suitable for culture in confined,	CIBA -2017 Chennai	New	3	2	30500	Dr.S.Paulpandi & Dr.S.Alagudurai	-	-

		water.	feeding management .	fresh and low saline waters. • ast growing fish(6moths-600gm),high market demand								
19	Ornamental Breeding management	Demonstration of Low investment high value ornamental fish culture production	• Lack of technical knowhow about breeding methods, • limited land, Unavailability of quality broodstock, • limited fish seeds, • Poor water management, • Socio-cultural problems.	• rnamental farmers, breeders and entrepreneurs to enhance their production using cost-effective technologies in a small area with less use of valuable water resources.	CIFA-2018 Bhubaneswar	New	3	1	15500	Dr.S.Paulpandi & Dr.S.Alagudurai	-	1
20	spirulina	Demonstration of spirulina culture in livelihood women	• Lack of technical knowhow about spirulina culture methods,	• pirulina is a simple Cyanobacterium (blue green algae) that grows	CMFRI-2018 Cochin	New	3	2	37010	Dr.S.Paulpandi & Dr.S.Alagudurai	-	1

			• Human nutrition base enterprises, • value addition etc	naturally in fresh water. • roduct has excellent source of Vitamin A,B,C,E an bio-tins. • pirulina also contain Poly-unsaturated fatty acids and very little cholesterol. • ood source of beta-carotene and also rich in iron content.								
21	Mobile app	Demonstration and study of CIFE m Jhinga mobile app intervention among farmers and assess the impact	• Lack of awareness about Pre stock and post stock management in fish farm.	• hows current market price trends. • or setting up new ponds, • it provides advisors to the	CIFE-2019 Mumbai	New	30	8	9000	Dr.S.Paul pandi & Dr.S.Alag udurai	2	4

				farmers.								
22	Nutrigarden	Demonstration of Nutrition Garden in Schools/Anganwadi centers to increase the food and nutrition security of the children (SAC Recommendation)	Poor nutritional status of School children, Lack of knowledge in multi nutritive value of vegetables , Poor knowledge of mothers on nutrition and hygienic practice	Demonstration of Nutrition Garden	TNAU, Coimabtore, 2013	New	10	-	7500-	Dr.P.G. Thenmozhi Dr.S. Alagudurai	3	1
23	Coconut	Demonstration on coconut product for higher income of the farmers	-Lack of knowledge on coconut value addition -Directly they are selling the coconut to the middlemen	Demonstration of Value added Coconut products (dried products, Coconut masala powder and coconut chips) Packing, Labelling, Quality control, Licensing and Marketing of the finished	CPCRI, Kasarkode 2019	New	10	10	14500	Dr.P.G. Thenmozhi Dr.S. Alagudurai	3	1

				product								
24	Banana	Demonstration of Banana Health Mix	Highly perishable &Under utilization,Lack of awareness of value addition of Banana, More yield, Low income,Poor remuneration and returns to the farmers.	Banan health mix using banana flour (40 percent) from Chakkai variety,sprouted bajra flour (20 percent),sprouted Bengal gram (25 percent) flour and cashew nut (15 percent	TNAU, Coimbatore, 2021	New	10	10	19000	Dr.P.G. Thenmozhi Dr.S. Alagudurai	2	5
25	Fruits/Vegetables	Demonstration on Domestic Solar Dryer for drying domestic agricultural / horticultural products	The post harvest losses in vegetables 20-40%, During the surplus production the farmers are not getting fair prices for their vegetables & greens, Lack of awareness on the usage of Domestic solar dryer for drying vegetables	-Can be used for drying domestic Agricultural products -Easy to handle(Capacity 1-2kg/batch,Total operation time:4-8 hours,Time saving-50-60percent).	TNAU, Coimbatore, 2022	New	3	3	15000	Dr.P.G.Thenmozhi Dr.S.Alagudurai		