ICAR-Agricultural Technology Application Research Institute
(ICAR-ATARI)

Action Plan 2020-21: Summary of Technical Activities

Frontline Demonstrations (FLDs)

S. No.	Category/ Crop or enterprise	Prioritized problem	Technologies Demonstrated	Source of Technology	Status*	No. of Demo	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	Foxtail millet	Low yield in existing local variety (450-500 kg/ha) Non availability of short duration variety Crop failure during drought due to long duration Crop Lodging during growing period	Demonstration of short duration foxtail millet variety and ICM practices in Kolli hills area	RARS, Nandyal, ANGRAU, 2012 (Suryannandi) TNAU, 2020 (ATL-1)	OFT Converted to FLD	10	4 ha	16600	Dr.P.Murugan Dr.N.Akila	-	5
2	Perennial Castor	No awareness on perennial castor variety Growing unknown castor varieties as intercrop / border crop	Demonstration perennial castor variety (YTP-1) and ICM Practices	TCRS, TNAU, 2019	New FLD	10	4 ha	21000	Dr.P.Murugan Dr.N.Akila	5	4

		Low yield (200-250 kg/acre) Poor soil fertility (Low N P K)									
3	Millet-Maize	Low yield in existing local variety (450-500 kg/ha) Non availability of short duration variety Crop failure during drought due to long duration Crop Lodging during growing period	Demonstration of Fall Armyworm management in Maize crop	TNAU & ATARI, Hyderabad, 2019.	Last year OFT converted into FLD	10	4 ha.	18000	Dr.K.R. Pushpanathan Dr.N.Akila	5	5
4	Oilseed-Coconut	Rugose spiralling whitefly incidence noticed on under surface of leaves in masses, Leaf drying, Sooty mold, Yield affected	Demonstration of IPM in Coconut crop	TNAU, Coimbatore, 2019	New FLD	10	4 ha.	29500	Dr.K.R. Pushpanathan Dr.N.Akila	-	2
5	Vegetable-Bhendi	Shedding of buds and flowers Circular boreholes on fruits Irregular yellowing of leaf -8% Severe infestation	Demonstration of IPM in Bhendi hybrid crop	TNAU, Coimbatore, 2016	New FLD	10	4 ha.	16500	Dr.K.R. Pushpanathan Dr.N.Akila	4	2

		results in premature defoliation Development of sooty mold Fruit not fit for marketing									
6	Black pepper	Drying of vines (50 -90%) Yield loss (90 %) due to incidence of foot rot	Demonstration of biological control of foot rot in black pepper in Kolli hills	IISR,Calicut,2018	Last year OFT converted into FLD	10	2ha	14500	Dr.C.Sharmila Bharathi Dr.N.Akila	-	10
7	Elephant foot yam	Yield reduction due to collar rot incidence Non-adoption of ICM practices	Demonstration of ICM practices in Elephant foot yam	TNAU, Coimbatore 2017 & CTCRI,2018	New FLD	10	2 ha	10300	Dr.C.Sharmila Bharathi Dr.N.Akila	1	-
8	Star Jasmine	Weed menace in wider spaced flower crops (90%) Sole cropping (99%) In efficient utilization of nutrients applied to the soil Yield reduction in flower crops during off season	Intercropping in Star Jasmine var .Co1 with vegetables (Radish/ French bean/ Small onion)	TNAU, Coimbatore 2019 & DFR, Pune 2018	Last year OFT converted into FLD	10	1 ha	21500	Dr.C.Sharmila Bharathi Dr.N.Akila	-	-
9	Cotton	• Poor soil fertility	Demonstration	CICR, Coimbatore,	Last year	10	4	9500	Dr.S.Sathya	-	5

		due to less OC & nutrients availability leads of flower drops and poor boll setting percentage • Shortage of farm yard manure during season	on nutrient management practice for cotton	2016	OFT converted into FLD				Dr.N.Akila		
10	Tomato	• Deficiency in organic carbon (78%), Zn (86%), B (29.5%), • Fruit crack and less market value	Demonstration of organic farming practice in tomato	UAS Dharwad, 2017 TNAU Coimbatore, 2013	New FLD	10	4	17500	Dr.S.Sathya Dr.N.Akila	10	5
11	Composting technology	• The increase of Parthenium infestation in crop area in recent past is alarming. • Information on composting lacking	Demonstration of Management of parthenium by way of composting	DWR, Jabalpur, 2015	New FLD	10	0.1	16750	Dr.S.Sathya Dr.N.Akila	10	5
12	Banana	• Deficiency of Zn (86%), B (29.5%), S (18.6%), & Fe (2%), Mn (2.6%), • & Cu (5%)	Demonstration of foliar application of various banana booster in banana	IIHR, Bengaluru, 2017 NRCB, Trichy, 2007 KAU, Thrissur, 2017 TNAU Coimbatore 2013	New FLD	9	3.6	15900	Dr.S.Sathya Dr.N.Akila	5	4

		• Fruit crack and less market value									
13	Goat production	•Zinc deficiency in soil •Poor tillers and yield of fodder •Poor body weight gain in goats	Demonstration on effect of zinc fortification in soil on zinc status in fodder and livestock	NIANP, Bangalore 2018	New FLD	10	100 animals	11800	Dr.N.Akila Dr.S.Sathya Dr.T.Hariharan	-	-
14	Dairy farming	• Lack of cultivation of leguminous green fodder • Lack of scientific feeding of green fodder in dairy animals which leads to low milk yield and milk fat and SNF	Demonstration of TANUVAS multi crop 10 cent fodder production model to enhance milk production in cross bred dairy animals	TANUVAS, Chennai , 2019	New FLD	10	20 animals	12500	Dr.T.Hariharan Dr.N.Akila	5	-
15	Desi-chicken production	• Gut health frequently challenged with pathogenic bacteria under filed conditions • Better gut health is vital for better growth performance in Desi-chicken	Demonstration of ProBeads-EC on growth performance of Desi-chicken	TANUVAS, Chennai , 2020	New FLD	10	250 birds	13500	Dr.T.Hariharan Dr.N.Akila	10	5

16	Desi-chicken production	• More external parasites • Anemic birds • Poor body weight gain • Mortality	Demonstration on package of practices to control lice infestation in backyard poultry	TANUVAS, Chennai , 2017	New FLD	10	250 birds	5000	Dr.T.Hariharan Dr.N.Akila	10	10
17	Fisheries-Production technology	• Unawareness of seabass culture technology, • Higher FCR with local feed • Market price low- Carps	Demonstration on Open pond culture of seabass- an alternate source of income for the small farmers	CIBA, Chennai 2011	New FLD	2	4000 Fish seeds	12000	Dr.S.Paulpandi Dr.N.Akila	-	-
18	Fisheries-IFS	• Environmental problems with animal excreta and fish pond • Monoculture productivity of pond not full utilized • High demand for fish and fish products along with meat and animal products. • Decline in agriculture growth rate and migration farm labours	Demonstration of Integrated farming of Fish-Cum-Cattle Farming system to improve yield and to generate additional income source to small farmers	Central Institute of Fresh water Aquaculture , Bhubaneshwar -2012	New FLD	3	2000 Fish seeds	24000.00	Dr.S.Paulpandi Dr.N.Akila	-	1

19	Fisheries- Fish by product	• Indiscriminate use of chemicals and pesticides lead to a resurgence of pesticide resistant strains. • Further deteriorated the health and longevity of livestock and humans, causing diseases like cancer. • Fish waste from fish landing and cleaning centre emerging as a major pollutant. • Accumulated fish wastes lead to unpleasant odours, infestation of rats, Maggots.	Demonstrating usage of fish Hydrolysates as Bio-stimulants for organic agriculture	Central Institute of Fisheries Technology (CIFT) - Cochin -2012	New FLD	2	Plastic Oil drum (5nos	11000.00	Dr.S.Paulpandi Dr.N.Akila	-	1
20	Fisheries-Fish Nutrition	• Since uneaten feed cannot be collected, it may increase	Demonstration on Impact of Floating diets on Growth, survival	Central Institute of Freshwater Aquaculture , Bhubaneshwar	New FLD	2	315kg Fish feeds	28350.00	Dr.S.Paulpandi Dr.N.Akila	-	1

		the organic loading of the pond waters. • Deterioration in water quality • Non availability of Feed ingredients(Fish meal, GNOC, de-oiled rice bran. and cottonseed cake) • Shorter storage period; low FCR; large surface required for drying. Moist feeds can not be stored and need to be used immediately • Starches not cooked and not well digestible. Low water stability	rate performance, enhancement of feed conversion efficiency, yield and cost effectiveness of Tilapia	-2012							