ICAR – KRISHI VIGYAN KENDRA
Karur
On Farm Testing conducted by the KVK

Year	Crop / enterprise	Title of OFT	Problem diagnosed	No. of trials	Technology Option
2020-21	Paddy	Assessment of ADT 53 paddy variety in karur district	Paddy is cultivated in about 8700 ha of land in the district. Majority of the farmers are cultivating BPT 5204 and IR 20 these varieties is old released, low yielding and susceptible various pest and diseases. Increase the production cost for use of more spray plant protection chemicals.	3	TO-1 -Paddy ADT – 53 TO-2–Paddy CO 51 FP - IR 20
2020-21	Paddy	Assessment of drip irrigation techniques in paddy	Paddy is cultivated under lowlands using lift irrigation in about 500 ha in Thogaimalai block in years when there is sufficient rainfall. Farmers take up only flood irrigation thereby water use efficiency is low. Moreover there are problems of weeds, pests and diseases due to flood irrigation. This results in high cost of cultivation. Due to limited supply in bore wells, farmers limit paddy cultivation area. Hence drip irrigation technology in paddy cultivation will solve the above problems and	3	TO-1 - Drip Irrigation TO-2 – Alternative wetting and Drying (AWD) – SRI – PaaniPipe FP- Conventional flood irrigation

			increase the productivity.		
2020-21	Groundnut	Assessment of PPFM drought management in groundnut	Low yield due to moisture stress at flowering and pod formation stages.	3	TO-1 - TNAU Groundnut rich + TNAU - PPFM TO-2 – CRIDA - Bacterial consortia - Two bacterial consortia (P7+B30+G12 and P45+B17+G12) FP- No Spray
2020-21	Cotton	Assessment of suitable inter cropping for cotton	Farmers are lacking awareness about intercropping with cotton; cotton is long duration crop farmers are waiting to income longer duration. Low productivity due to high incidence of pest and diseases in cotton. To overcome the effects of higher production cost and low income, it is proposed to conduct the present assessment.	3	TO-1 - Cotton inter cropping with Radish / Beetroot TO-2 – Cotton inter cropping with Black gram – VBN – 8 FP- Cotton sole crop
2020-21	Redgram	Assessment of different decomposers in Redgram (Co 8) crop residue composting	Long time to compost Lack of availability of manure Increasing cost of production	3	TO-1 - Composting with Microbial consortium TO-2 – Composting with waste decomposer - 200 lit/ton of residue FP- Natural composting
2020-21	Paddy	Assessment of Organic Nutrient Management in Rice cultivation (CO51)	Low productivity (Average yield 4780 kg/ha) High cost of production Low Organic Carbon – 0.4%	5	TO-1 - Green manure + STCR NPK + Bio Fertilizer TO-2 – INM - Green manure + Soil Test based NPK+ Bio fertilizers FP- Green manure + Chemical fertilizers
2020-21	Tomato	Assessment of new high yielding tomato hybrid CO4	Low production due to incidence of diseases	3	TO-1 - Tomato Hybrid CO 4 TO-2 – *Arka Abhed* FP- Nil
2020-21	Banana	Assessment of new high yielding Banana varieties	Low yield , Non availability of high yielding varieties	5	TO-1 - CO.2 banana

2020-21	Onion	Assessment of new high yielding Onion variety CO 6	High pest, disease Incidence and low yield in local varieties	3	TO-1 - CO6 TO-2 – ArkaUjjwal FP- CO 5
2020-21	Turmeric	Assessment of new high yielding Turmeric Variety CO2	Low yield due to cultivation of local varieties.	3	TO-1 - CO2 TO-2 – Prathibha
2020-21	Tapioca	Assessment of performance of foliar based micronutrient mixture for yield enhancement in Tapioca	Low productivity due to deficiency of micro nutrients in soil , non adoption of ICM practices	3	TO-1 - TNAU Cassava booster 12.5 kg /ha TO-2 - Cassava special @ 5g/litre FP- No spray
2020-21	Redgram	Assessment of biochar for soil fertility improvement in Redgram (Co(Rg)7)	Low yield due to imbalanced nutrient application and high deficiency of micronutrient cause pest and disease Lack of bio product residues management practice. Air pollution and Bio wastes are burn in field	3	TO-1 - Application of biochars and bio fertilizers TO-2 - Application of TNAU micronutrient mixtureand bio fertilizers FP- Without application of MN and biochar
2020-21	Maize	Assessment of management module against Maize Fall Army worm	Invasive insect pest *Spodoptera frugiperda* reduced the maize yield by more than 50%. The area being rainfed , management of FAW was found difficult.	3	TO-1 - Summer ploughing ; Seed treatment Fortenza duo (Cyantraniliprole + Thiamethoxam) @ 4ml/kg ; Collection & Destruction of egg masses; setting up of Pheromone traps (*S. frugiperda*) @ 4 nos/ac; Cultivation of Border crop with grain sorghum & inter crop with cowpea (few rows); Application of Azadirachtin 10000ppm @ 2ml/lt (10 to 15 DAS) followed by EPN or Bt spray @ 2 ml/lt (15 to 21 DAS); First insecticide spray - Emamectin Benzoate 5SG @ 0.4g/lt (or) Spinosad 480SC @ 0.5 ml/lt (21-28 DAS); *Metarhiziumanisopliae* spray ($1x10^7$) @ 2 ml/lt (30 -35DAS) Second Insecticide spray - Flubendiamide

					480SC @ 0.3 ml/lt (or) Chlorontriliniprole 18.5SC @ 0.3ml/lt or Spinetoram 11.7 SC @ 0.3 ml/lt (36 – 42 DAS) Poison Baiting – 45 -65 DAS using Thiodicarb 75WP FP - Spraying of Insecticides
2020-21	Coconut	Assessment of management module against Coconut Rugose Whitefly	Invasive insect pest RSW reduces the coconut yield. As the district has over 6700 ha under coconut, the RSW is considered as a threat. With the occurrence of drought, the RSW could be more serious.	3	TO-1 - Installation Yellow sticky traps 3 x 1.5ft @ 10nos/ac Release of *Chrysoprerlazastrowisilemmi*Predator @ 400 nos/ac at 15 days interval; Release of *Encarsiaguadeloupae*parasitoids @ 10 bits of leaflets 2.5 cm length containing parasitized pupae; Spraying neem based formulations (Azadirachitin 1% @ 2 ml/lit) along with wetting agent or detergent powder @ 10g/lit at 20 days interval; Spraying of 1% starch solution for sooty mould Avoid spraying of chemical insecticides FP - Spraying of Insecticides
2020-21	Brinjal	Assessment of fruit and shoot borer management in Brinjal	Severe yield loss (over 50%) due to incidence of fruit and shoot borer. Indiscriminate application of insecticides poses serious problem of pesticide residue, high cost of plant protection and pest resistance.	3	TO-1 - TNAU IPM Module: Crop sanitation. *Trichogramachilonis*@ 50,000/week/ha; Spray Neem Seed Kernel Extract 5 % ; Need based chemicals insecticide spray of Emamectin benzoate 5 % SG @ 4g/10 lit or Flubendiamide 20 WDG ; @ 7.5g/10 lit of water from one month after planting at 15 days interval TO-2 - Mass trapping with NBAIR pheromone traps (water type) 15 per ac to be set after first week of planting FP - Weekly application of insecticides.
2020-21	Jasmine	Assessment of technology modules against Jasmine	Severe yield loss (over 30%) due to Incidence of jasmine budworm	3	TO-1 - Spray with *Beauveria bassiana*(NBAIR formulation)

		Budworm	and also low market price due to poor flower quality. Indiscriminate application of insecticides (weekly 1 – 2 times) poses serious problem of pesticide residue, high cost of plant protection and pest resistance.		@ 5 g per lit. of water three times along with six release of *Trichogramma chilonis*@ 1,00,000/ha and *Chrysoperlazastrowisillemi*@ 4 – 5 grubs per plant @ 7 days interval from bud initiation stage TO-2 - Installation of light traps 1/acre, Spray neem seed kernel extract 5 % Spray of *Beauveriabassiana*2 g/litre. FP- Twice in a week application of insecticides.
2020-21	Coconut	Assessment of Social media Facebook for dissemination of information to farmers	Due to the COVID 19 lockdown, there is problem for reaching out to farmers. Under such situations use of mKisan and social media such as WhatsApp and Facebook have been helpful to reach out to large number of farmers.	3	TO-1 – Facebook TO-2 - WhatsApp group FP - SMS
2020-21	Redgram	Assessment of farmer innovation – Tractor drawn multicrop seeder in Redgram	Redgram is cultivated in over 3500 ha in Karur district mostly under rainfed situation. The seeds are broadcasted in the field and this results in dense planting. Further this results in lesser branching and higher incidence of pests.	**3**	TO-1 – Tractor drawn multicrop seeder (Balram seeder) TO-2 - Tractor drawn precision pulse seeder FP - Conventional method
2020-21	Dairy	Assessment of Prosynch – NF technology in augmenting fertility through estrus synchronization	Animal those are not conceiving three normal Artificial insemination considered as repeat breeding cows. Infertility due to repeat breeding is caused by several factors such as deficiency of minerals, nutritional imbalance, poor management practices, poor quality semen and diseases.	**1**	TO-1 – Oestrus induction using nano progesterone - Prosynch – NCF to be preceded by deworming and mineral supplementation TO-2 - Oestrus induction using nano progesterone - Prosynch – NC to be preceded by deworming and mineral supplementation FP - Artificial insemination during natural estrus

2020-21	Sheep	Assessment of AFTD (Aerated film dry technologies) salt in mineralized salt lick in sheep	Mineral deficiency in sheep leads to low weight gain. Lack of awareness on mineral supplementation.	3	TO-1 – Incorporation of AFTD (Aerated film dry technologies) salt in mineralized salt lick - Dosage of 4 kg per 10 lambs for 90 days after weaning. TO-2 - NTANP Small ruminant mineral mixture 15g daily along with concentration feed FP - NaCl feeding
2020-21	Banana	Assessment of solar drying technique for banana flour preparation in Poovan variety	Banana is cultivated in over 2400 ha. Due to the COVID 19 situation the price of banana has got reduced also frequent strong wind leads to wastage of bunches. There is also prevalence of nutritional deficiency among children and women. Cabinet drying technique of dehydration is expensive and sun drying may lead to fungal contamination as well as poor quality flour.	3	TO-1 – Blanching + curing + Solar drying and preparation of value added product – Health beverage mix TO-2 - Blanching + curing + Cabinet drying and preparation of value added product – Health beverage mix FP - Blanching + curing + Sun drying and preparation of value added product – Health beverage mix
2020-21	Watermelon	Assessment of alternative sweetener for watermelon rind candy preparation	The available candies in the market are prepared from refined white sugar, that is not very healthy. Water melon is abundantly available during the season and the rind is not utilized. There is unemployment among farm women during summer season	3	TO-1 – Watermelon rind candy with jaggery TO-2 - Watermelon rind candy with country sugar FP - Watermelon rind candy with refined white sugar
2020-21	Millet	Assessment of different types of herbal powder incorporated millet cookies	Lack of awareness about therapeutics properties of herbs. Addition of artificial flavours and colouring agents leads to health hazards	3	TO-1 – Millet cookies with addition of thulasi powder @ 20g/kg (2%)+ Whole wheat flour+ Millets (Ragi , Jowar) TO-2 - Millet cookies with addition of Thuthuvalai powder @ 20g/kg (2%)+ Whole wheat flour+ Millets (Ragi ,Bajra) FP - Maida + Dalta + White sugar+

					Artificial colour
2020-21	Mushroom	Assessment of different types of milky mushroom suitable for Karur District	Farm women lack entrepreneurship opportunity . Paddy is cultivated in large area and hence paddy straw is available abundantly. The children and farm women have nutritional deficiency also.	3	TO-1 – Arka (om) 1 TO-2 - APK 1 FP - PF
2019-20	Paddy	Assessment of Organic Nutrient Management in Rice Cultivation	Imbalanced nutrient application Increasing cost of production due to high cost of chemical fertilizers	5	TO 1 Farmers practice - Green manure + Chemical fertilizers TO 2 INM - Green manure + Soil Test based NPK+ Bio fertilizers TO 3: Organic: Green manuring, Seed treatment with 3% Panchagavya, EFYM @750 kg/ha + 100 kg rock phosphate + neem cake 200 kg/ha; top dressing vermin compost @ 1t/ha; 3% panchagavya spray twice at AT and PI
2019-20	Sesame	Assessment of different decomposers in sesame residues composting	Long time to compost Lack of availability of manure, increasing the cost of production	2	TO1-Farmers practice-Natural composting TO 2-Urea -5 kg,Rock phosphate-10kg, Pleurotus-2kg, 2kg(Bacillus + Trichoderma sp + Pseudomonas sp) TO 3- Waste decomposers 200 lit/ton of residue
2019-20	Maize	Assessment of Fall armyworm management in maize	Heavy incidence of fall armyworm leading to reduction in yield	5	TO 1 – Farmer Practice To 2: Summer ploughing, Border crop with fodder sorghum, Seed treatment with Cyantraniliprole, Setting up of *S. frugiperda* pheromone traps, Spray of Neem oil, Application of entomopathogenic nematode, Spray Emamectin Benzoate, spray with *Metarhizium.*

2019-20	Black Gram	Assessment of summer irrigated black gram	Low yield due to continuous use of ADT 3 and ADT for continuous period high YMV incidence (more than 60 %) leading to high plant protection cost and reduced income. Lack of awareness about drought tolerant and YMV resistant variety.	5	To1: Farmers practices (ADT 3) To 2: TU 40 To 3: VBN – 8
2019-20	Groundnut	Assessment of two drought tolerant groundnut variety	Poor germination of local market purchased seeds Lack of adoption of varieties suitable for drought toleranc Farmers getting low yield due to high pest and disease incidence local variety, leading to increase in the production cost and less yield. Low availability of water and moisture stress leading to low yield	5	To 1 - Farmers practices To 2 - CO 7 To 3 - ICGV - 00350
2019-20	Minor millets	Assessment of suitable minor millets	Less yield due to lack of awareness about suitable minor millets and varieties	5	To 1 -Farmers practices (Fodder sorghum) To 2 - Kodo millet (Varagu) – CO 3 To 3 - Little millet (Samai) – CO 4
2019-20	Banana	Assessment of new high yielding Banana varieties	Low yield , Non availability of high yielding varieties	5	To1- Farmers practices To2- Udhayam To3- Kaveri Kalki
2019-20	Small onion	Assessment of flower based intercropping system in Small Onion	Low yield in small onion due to pest & disease incidence & in efficient utilization of nutrients applied to the soil	5	To1-Farmers practice-Sole cropping of small/ aggregatum onion with a spacing of 15 x 15 cm To2- Aggregatum onion (15 x15 cm) + Chilli (75 x 60 cm) intercropping system To3- Aggregatum onion (15 cm) + Chrysanthemum (60x60cm) intercropping system

2019-20	Millet	Assessment of alternative sweetener for cookies preparation	High incidence of non communicable disease – diabetes occurs due to use of white sugar	3	TO 1 Cookies with white sugar TO 2 Cookies with Palm sugar TO 3 Cookies with Jaggery
2018-19	Groundnut	Assessment of two high yielding and drought tolerant Groundnut varieties in Karur district	Low productivity due to lack of adoption of varieties suitable for drought tolerance, high pest and disease incidence and also moisture stress at critical crop stage	5	TO 1 - Farmers Practices (TMV 7) TO 2 – VRI 8 TO 3 - Dharani (TCGS 1043)
2018-19	Paddy	Assessment of suitable Paddy varieties in Karur district	Low productivity and high cost of plant protection due to high pest and diseases incidence Farmers growing BPT 5204 that is susceptible for more pest and disease	5	TO 1 – Farmers Practices (BPT 5204) TO 2 – TKM 13 TO 3 - CO 52 (MGR 100)
2018-19	Sesame	Assessment of two different white seeded Sesame varieties in Karur district	Low productivity due to use of traditional variety	5	TO 1 Farmers practices TO 2 – SVPR 1 TO 3 - VRI 3
2018-19	Bhendi	Assessment of new high yielding Bhendi Hybrids	Low productivity due to high incidence of YMV disease and less pickings in commercial hybrids	5	To1- Farmers practices sakthi To 2-TNAU Bhendi Hybrid CO4 To3-IIHR Arka Nikita
2018-19	Composting	Assessment of different decomposers in coir pith composting	High lignin content and long time to compost Lack of awareness	2	TO 1 - Farmers practice-Natural composting TO 2 - Coir dust 1tonne, Urea -5 kg,Rock phosphate-10kg, Pleurotus-2kg, 2kg(Bacillus + Trichoderma sp + Pseudomonas sp) TO 3 - Raw coir pith- 1 tonne- Arka Decomposer 5 kg- Urea 3.25 kg

2018-19	Dairy	Assessment on augmenting fertility in dairy cattle through estrous synchronization	Infertility due to repeat breeding	6	TO 1- Farmers practices TO 2 - CIDR Protocol TO 3 - Prosynch – NC
2018-19	Desi Bird	Assessment of desi Chicken varieties of TAVUVAS Aseel,Gramapriya, and Srinidhi under backyard farming system	High mortality, Poor weight gain, Unavailability of improved strains & Low economic gain	5	TO 1- Farmers practices TO 2 TANUVAS Assel Chiken TO 3 Gramapriya TO4 Srinithi
2018-19	Millets	Assessment of alternatives for wheat flour in the cookies preparation for gluten allergy	Cookies available in market are gluten allergy food items due to the presence wheat flour.	3	TO 1 - Refined wheat flour TO 2 - Brown rice cookies TO 3 - Millet cookies
2018-19	Millets	Assessment of millet bar	Less utilization of millets lack of ready to eat millet foods	5	-
2018-19	Onion	Assessment of onion flakes by different methods of dehydration	Post harvest losses leads to 10 - 15% loss During the peak season of harvest the crop fetches very low price	5	TO 1 -Sun drying TO 2 - Osmotic dehydration + Sun drying TO 3 - Osmotic dehydration+ solar drying
2017-18	Extension	Assessment of suitable Extension Mode for Transfer of Technology	Low technological accessibility	1	To1- Dissemination through FFS To2 –Dissemination through FLD To3 – Dissemination through message
2017-18	Dairy	Assessment of different preventive measures for subclinical mastitis in dairy cow	Poor udder health Management	10	To1 – Farmers practices To2 – Mastiguard –Teat Protect spray To3 - Herbal teat Dip
2017-18	Banana	Assessment of new high yielding Cooking type	Low yield , Non availability of high yielding varieties	5	To1 – Saba To2 – Bangrier

2017-18	Onion	Assessment of new high yielding Onion Hybrids	High pest, disease Incidence and low yield in local varieties	5	To1 – Farmers practices To2 – CO(On) 5 To3 - ArkaUjjwal
2017-18	Chilli	Assessment of new high yielding Chilli Hybrids	High pest , diseases Incidence and low yield in existing local varieties	5	To1 – Farmers practices To2 – CO1 To3 - ArkaHarita
2017-18	Ragi	Assessment of ragi varieties in karur district	Low yield due to farmers long time used for traditional variety , Lack of awareness of high yielding and pest and disease variety	5	To1 – Farmers practices To2 – CO 15 To3 – ML 365
2017-18	Paddy	Assessment of disease resistant paddy varieties in karur district	Lack of awareness of short duration and pest and diseases resistant variety, Increases production cost due to high pest and disease protection management. Moisture stress for unavailability water period	5	To1 – Farmers practices To2 – Improved samba mashuri To3 – TKM 13
2016-17	Groundnut	Assessment of the two different high yielding groundnut varieties in Karur district	Low yield due to poor germination of local market purchased seeds, Low availability of water and moisture stress leading to low yield, Farmers getting low yield due to pest and diseases incidence	5	To 1 – Farmer practices To2 – VRI 8 To3- KADIRI 9
2016-17	Paddy	Assessment of two paddy Cono weeders	Labour problem, High cost for weeding, Drudgery in operation	5	To - 1 - Farmer's practice To - 2 -TNAU,2006 To - 3 -TNAU,2005 To - 4 -Farmer innovation,2015

2015-16	Sorghum	Assessment of the high yielding sorghum variety K 12 in Karur district	Low availability of water and moisture stress leading to low yield	5	To - 1 - Farmer practices To - 2 -CO 30 To - 3 - K-12
2015-16	Groundnut	Assessment of the Drought tolerant groundnut variety CO 7	Low availability of water and moisture stress leading to low yield, Farmers getting low yield due to pest and diseases incidence	5	To - 1 -Local (TMV 7) To - 2 -Kadiri – 6 To - 3 -CO (Gn) -7
2015-16	Bhendi	Assessment of YMV resistant Bhendi Hybrid CO (Bh) H 1	Low yield due to high incidence of Pest and Disease	5	To 1 – Sakthi To2 – Kashi Kranti To3- CO(Bh)H1
2014-15	Castor	Assessment of two different Castor hybrids for higher productivity	Low productivity due to use of traditional variety	5	To 1 – Farmer practices To 2 - YRCH 1 To 3 - GCH 7
2014-15	Paddy	Assessment of Improved Samba Mahsuri rice variety in Karur district.	Low yield due to BLB and blast disease in BPT 5204 rice variety	5	To1 – Farmer practices (BPT 5204) To2 - ADT (R) 49 To3 - Improved Samba Mahsuri
2014-15	Paddy	Assessment of two drought tolerant rice varieties in Karur district	Low yield due to moisture stress, Non availability of drought tolerant variety	5	To 1 – Farmer practices To2 – ANNA (R) -4 To3- Sahbhagi Dhan
2013-14	Sesame	Assessment of two different varieties of sesame seeds for improved wet dehulling method of sesame seeds to nutritional value	Low market rate due to traditional method of dehulling	5	To 1 - Farmers practice(Traditional variety) To 2 - Improved wet hulling of sesame seed (SVPR1) To 3 - Improved wet hulling of sesame seed (VRI-SV(2))

2013-14	Banana	High density planting system in banana variety Neypoovan	High cost of production for per kg banana production	5	To 1 - Farmers practice -2X 2m spacing (2500 Plants per Ha), To 2 - 2.25 m X 2.55m, (3480 plants per HA) To 3 - Paired row system,1.5 X 1.5 X 2.25m, (3650 plants per HA)
2013-14	sweet potato	Assessment of high yielding improved varieties in Sweet Potato	Low yield and susceptible to sweet potato weevil	5	To 1 - Farmers practice Madurai Local To2 – Sree Arun,CTCRI To 3- Sree Varun CTCRI
2013-14	Tapioca	Assessment of high yielding improved varieties in Tapioca	Low yield and low starch content	5	Varietal assessment
2013-14	Paddy	Assessment of two different methods of cultivation in rice for higher profitability	Delayed receipt of water leading to delayed planting, yield loss	5	TO1.Conventional method TO2. Drum seeding with normal spacing TO3.Drum seeder with 25 x 25 cm spacing
2013-14	Banana	Assessment of two different IDM modules for the management of Sigatoka Leaf spot	Low productivity due to incidence of disease	5	To 1 -Spraying of fungicides alone To 2- Cultural control followed by 3 sprays of Propiconazole 0.05% with petroleum based mineral oil (1%) To 3- IDM module involving – cultural control followed by 5-7 sprays from 150 DAP with fungicides @ 1g/l (carbendazim, propiconazole, carbendazim+mancozeb, tridemorph on rotation basis along with mineral oil 10 ml/l)
2013-14	Groundnut	Assessment of drought tolerant varieties in Groundnut	Low yield due to drought situation	5	To 1 - TMV7 To 2 - ICGV91114 To 3 - KADIRI-9

2013-14	Rice	Assessment of different management strategies to mitigate drought in paddy	Water scarcity	10	TO 1 – Kcl spray TO 2 – PPFM TO 3 – Bacterial Consortia
2012-13	Vermi composting	Assessment of banana fibre waste as used for quality Vermicompost preparation	Wastage during fiber extraction	3	To 1 - composting with farmyard manure To 2- Composting with Farmyard manure+ banana fiber pith (extracted wastage) To 3 -Composting with EM+ banana fiber pith (extracted wastage)
2012-13	Goat	Assessment of elite goat breed for better breeding and higher production	Indiscriminate breeding and absence of elite bucks of good breeds, resulting in low weight at birth, poor growth and susceptibility to various diseases	5	To 1 - Indiscriminate breeding To 2 - Breeding with Tellichery buck To - 3 Breeding with Sirohi buck
2012-13	Dairy cows	Assessment of GRAND supplement in cross bred dairy cows	Poor milk yield in cross bred dairy cows due to improper digestion	10 (2 cows for each trial)	To1 - Feeding of gruel and gram husk To 2 – Feeding of GRAND supplement @ 20 ml /cow daily along with gruel and gram husk
2012-13	Moringa	Assessment of High yielding and off season varieties in Moringa	Low yield and one season fruiting	5	To1 – Farmers practice PKM 1 To 2 – Bhagya (KDM - 1)
2012-13	Tapioca	Assessment of high yielding variety with high starch content	Low yield and low starch content	5	Varietal assessment

2012-13	Brinjal	Assessment of IPM modules for the Management of shoot and fruit borer in brinjal	Shoot and fruit borer incidence leading to lower yield	5	To1-Spraying of Monocrotophos 2ml/litre To 2- Release of Trichogramma chilonis 5cc/ha + Installation of pheromone traps 12/ha+Spraying of Azadirachtin 1% 2ml/litre+ spraying of Carbaryl 50 wp 2g/litre of water To3- Netting of nursery+ Mechanical control+ Installation of pheromone traps 12/ha
2012-13	Sugar cane	Assessment of Sugarcane variety TNAU Si 8 through SSI method	Low productivity and profitability	5	To 1 - Farmers practice Co 86032 – normal method of planting To2 – Co 86032 in SSI method To 3 – TNAU (Si) – 8 in SSI method
2012-13	Redgram	Assessment of two different varieties of Red gram along with IPM modules for pod borer complex	Low productivity due to use of traditional varieties	5	To 1 - Farmers practice To2 – VBN2 To 3 – TS 3
2012-13	sorghum	Assessment of two sorghum varieties for higher productivity and value addition	Low productivity due to use of old varieties	5	To 1 - Farmers practice To 2 - Co 30 sorghum To 3 - DSV 6 Sorghum
2012-13	Rice	Assessment of two different methods of nursery raising for machine planting in Rice	Absence of cost effective Nursery raising techniques for machine planting	5	To 1 - Farmers practice To 2 - Use of manually operated seeding machine To 3 - Use of fully automatic seeding machine for preparing nursery trays
2011-12	Paddy	Assessment of dry and wet method of making ethnic fermented food (idly) using rice variety TRY-3	Lack of awareness about suitable rice varieties for making Quality idly	6	To 1 - Farmers practice To 2 -Wet Method To 3 - Dry Method

2011-12	Buffalo	Induction of ovulatory oestrus using ovsynch protocol in buffaloes	Follicular cystic ovaries, anoestrum leads to poor conception rate	10	To 1 - Natural service/ artificial insemination To 2 - Ovsynch technology 0th day – 10 mg GnRH analogue 7th day 20 mg PGF2α 9th day – 10 mg GnRH analogue
2011-12	Tapioca	Assessment of variety for higher yield with high starch content in tapioca	Low yield with less starch content	5	To 1 - Local variety(H226) To 2 - Co(TP)4 To 3 - Sree Harsha
2011-12	Banana	Assessment of Micro nutrient mixture foliar spray in banana variety Neypoovan for higher yield	Micro nutrient deficiency	5	To 1– Farmers practice To 2- NPK + IIHR Banana special 0.5% foliar spray at 5th, 6th, 7th, 8th, 9th and 10th To 3- NPK +NRCB Banana sakthi 2% foliar spray at 3rd, 5th and 7th month after planting
2011-12	Banana	Management of banana nematodes in neypoovan variety	High incidence of banana nematodes	5	To 1- Soil application of carbofuron 3 G granules To 2- Pseudomonas fluroscens 10g /planting (2 kg) Application of Carbofuran 3 g @40g/ plant at 90 days after planting(80kg/ha). Application of neem cake (500 g/plant)- 1000 kg/ha To 3- Pairing of suckers and dipping in nimbecidine 1.5 % (7.5l/ha) for 30 minutes + Trichoderma viride @ 20g/plant one at the time of planting and second after 3 months of planting (8 kg/ha) + carbofuran @ 50 g/plant two applications after planting at 3 monthly intervals (200 kg/ha)

2011-12	Black gram	Evaluation of the suitability of black gram varieties VBN-5 and CO-6 for Adipattam in Karur district	Low productivity due to use of traditional varieties	5	To 1 - Local (VBN-4) To 2 - CO-6 To 3 - VBN-5
2011-12	Red gram	Assessment of the performance of transplanting of red gram variety VBN-2	Poor crop establishment in the initial stage of the plant	5	To 1–direct sowing To 2-dibbling of the seeds To 3-Transplanting of polybag seedlings
2011-12	Sugarcane	Assessing the performance of suitable planting method of sugarcane for better crop establishment.(TNAU Sugarcane Si-7)	High cost involved in the planting materials and also the yield level is low in this method.	5	To1-Direct planting of two budded setts To 2- Direct planting of single budded setts To 3- Planting of portray seedlings
2010 -11	Banana	Approaches to overcome drudgery reduction and quality improvement of banana fiber	Drudgery in fibre extraction	5	To 1 -Hand stripping. To 2 - Retting by means of chemical – NaOH @10% at 600 C water for two days. To3 - Retting by means of microbial organism (CAP culture @ 250 gm under 1:10:1 (1 kg fibre with 10 lit water with 1 kg jaggery) 40º C for 2 days.
2010 -11	Banana	High density planting in Banana (var. Neypoovan)	High cost in production with low yield	5	To 1 - 2mx2m one sucker per hill To 2 - 1.5x1.5mx2m paired row system of planting To 3 - 2mx3m with two sucker per hill

2010 -11	Poultry	Control of Ranikhet disease in desi chicken	Increased mortality of chicks and adults due to Ranikhet disease	500 birds	To1 - No Vaccination/ Vaccination at 8th week to 10th week at veterinary dispensaries To2 - Lasotta vaccine 7th to 10th day RDVK vaccine 8th and 16th week To3 - Oral pellet vaccine 7th to 10th day, Oral pellet vaccine at 8th week
2010 -11	Betelvine	Foot Rot Mangement in betelvine	low yield due to disease incidence		To 1- Spraying Mancozeb 2g/lit To 2- Premonsoon soil drenching 0.25% of Bordeaux mixture @ 1lit+ 0.5 g Streptocycline – Soil application of Trichoderma viride 1 kg + 100 kg FYM + 10 Kg neem cake (once in three months) To 3- Pre Monsoon soil drenching 0.25% Bordeaux mixture @ 1 lit + 0.5 g streptocycline – Soil application of Pseudomonas fluorescens 1 kg + 100 kg FYM + 10 Kg neem cake (once in 3 months)
2010 -11	China aster	Comparison of variety in china aster for suitability in open area	Market glut due to mono crop	5	To 1 - Farmers practice – chrysanthemum cultivation To 2 - Cultivation of China Aster var Hosur Local during winter months To 3 - Cultivation of China Aster variety Kamini during winter months
2010 -11	Paddy	Assessment of multi row power weeder and battery operated power weeder in paddy	Labour scarcity for weeding	5	To 1 - Cono weeder To 2- TNAU power weeder To 3 - Single row power weeder designed by KVK,Madurai

2010 -11	Sugarcane	Assessment of suitable planting material in sugarcane for better crop establishment	High cost involved in the planting materials	5	To 1-Direct planting using two budded setts To 2 -Direct planting single budded setts To 3- Transplanting of portray seedlings
2009-10	Banana	Drudgery reduction and quality improvement of banana fibre	Nil	5	To 1 - Retting by means of chemical To 2 - Retting by means of biological organism (CAP enzyme) To 3 - Retting by means of biological organism (Xylanase)
2009-10	Goat husbandry	Goat breed for higher productivity	Poor growth rate	5	To 1 - Oestrus synchronization with progesterone+AI with Boer goat semen To 2 - Oestrus synchronization with progesterone+ AI with Tellichery goat semen
2009-10	Milch cow	Effect of EM in uptake efficiency, cost reduction, quality and milk production	Low quantity and quality of milk	6	To 1 -Green fodder 10-15 kg/cow/day + Dry fodder 5 kg/cow/day + concentrate feed 1.5- 2 kg/cow/day + Mineral mixture 25-30 gm/cow/day. To 2 - Green fodder 10-15 kg/cow/day + Dry fodder 5 kg/cow/day + concentrate feed 1.5- 2 kg/cow/day + Mineral mixture 25-30 gm/cow/day + EM bokashi 200 gm/cow/day + EM solution 40 ml/ cow/day
2009-10	Banana	Management of Pseudo stem weevil in Banana	Occurrence of pseudo stem weevil in banana	6	To 1 -Monocrotophos at 4 ml (54 ml of monocrotophos 36 WSC with 350 ml of water) at two heights viz., 45 and 150 cm in the pseudostem at monthly interval from 5th to 8 the month. To 2 - Application of Beauveria bassiana 20 g in the pseudostem of the banana

2009-10	Banana	Management of Panama Wilt in Banana	Occurrence of panama wilt in banana	5	To 1 - Gelatin carbendazim capsules 60 mg + 3 ml of 2 % carbendazim solution injected with the help of corm injector on 2nd, 4 the and 6 th month DAP + Paring Pralinage of carbofuron @ 40 g/plant To 2 - 50mg of carbendazim capsules + 3 ml of 2% carbendazim solution at 5 th , 7 th and 9 th month + soil drenching of propiconazole 0.1 % once at 5 th , 6 th and 7 th month respectively+ paring pralinge of carbofuron @ 40 g/plant
2009-10	Banana	Assessment of suitable method of planting in banana for higher profitability	Low yield & low density of population and less productivity and profitability	6	To 1 - High density planting at the spacing of 1.2 x 1.2m pair row method of planting with the spacing of 2m To 2 - High density planting
2009-10	Sun flower	Management of Mealy bug in Sun flower	High incidence of mealy bug	6	To 1 - Spraying Acephate75WP@2gm/lit with the help of hand operated knapsack sprayer. To 2 - Spraying Profenophos 1ml/lit+ Fish Oil Rosin Soap (FORS) 20gm/lit with the help of hand operated knapsack sprayer
2009-10	Fodder	Assessment of suitable Fodder Variety for higher productivity	Lack of availability of green fodder	6	To 1 - Cultivation of COFS -27 To 2 - Cultivation of CSH-13
2009-10	Paddy	Assessment of suitable variety/Hybrid under saline situation to improve the productivity	low yield due to salinity	6	To 1 - Cultivation of TRY-2 To 2 - Cultivation of CORH-3
2008-09	Ragi	Selection of suitable Ragi variety under saline soil for increasing yield	Low productivity due to saline condition	6	To 1 - Co(Ra)-14 To 2 - GPU-28

2008-09	Paddy	Selection of suitable paddy variety under saline soil for increasing yield	High cost of micronutrient Low yield and low productivity	6	To 1 - TRY-2 To 2 - Co 43
2008-09	Bhendi	Fruit and shoot borer management in bhendi	Occurence of shoot and fruit borer in bhendi damages the fruits which results in low quality and profitability	6	To 1 - Two times spraying of Endosulfan 35 EC at 45DAS and 75DAS @2ml/lit+Neem oil 3%at 30DAS and 60DAS+Pheromone trap 12nos/ha +T.Chilonis 5cc at 30DAS To 2 - Emamectin benzoate at 45DAS and 5DAS@1gm/lit + Neem oil 3%at 30DAS and 60DAS+ Pheromone trap 12nos/ha +T.Chilonis 5cc at 30DAS
2008-09	Paddy	Management Of Yellow Stem Borer In Paddy	High cost of inputs and low profitability	6	To 1 - Cartap hydrochloride 25kg/ha@50 DAT and 7 Times, weekly release of T.chilonis and T.japonicum@5cc/ha from 30DAT To 2 - Profenophos 2 times spray at 30 DAT AND 45DAT @ 2ml/lit+Pheromone, trap 12/ha +30,37,44 DAT release of T.chilonis and T.japonicum @5cc /ha

2007-08	Banana	Management of Pseudo stem weevil in Banana	Occurrence of pseudo stem weevil in banana, poor economic yield and low profitability	10	To 1 - Monocrotophos spray @1 ml/lit of water at monthly interval (2 times) +Injection of monocrotophos @ 4 ml To 2 - Injection of monocrotophos @ 1.2 ml in 2.8ml of water@ 60 and 150 cm height from the base on apposite direction 2 45 angles during 5th and 6th month
2007-08	Tapioca	Intercrop for higher productivity of Tapioca	High weed competition and low productivity	10	To 1 - Inter cropping with cowpea To 2 - Intercrop with bhendi
2007-08	Chilli	Nursery management practices in chilli	Poor establishment of seedling and low yield	15	To 1 - Raised bed nursery To 2 - Protray nursery
2007-08	Sugarcane	Management of Sugarcane Early Shoot borer	High cost of inputs and their cultivation with low profitability	5	To 1 - Application of carbofuran 3G @33 kg/ha (Soil application)+Daincha intercropping +Granulosis virus 750 diseased larvae /ha at 35 and 50 DAP To 2 - Releasing Trichogramma chilonis3 times at 30th, 45th and 60th day +spraying of NSKE 5% and fibronil 2ml /lit alternatively.
2007-08	Sunflower	Micro nutrient management in Sunflower	Low seed filling and productivity	10	To 1 - Soil application of 12.5 kg of MN Mixture To 2 - SSoil application of 10Kg ZnSo4+Foliar spray of MnSo4+Znso4 @ 0.5% at 30,40&50th DAS
2007-08	Maize	Importance of Micronutrient (zn) for higher seed filling in maize	Poor seed filling	6	To 1 - Soil application of 12.5 kg of MN Mixture To 2 - Soil application of 10Kg ZnSo4+Foliar spray of Znso4 @ 0.5% at 30&45th DAS

2007-08	Maize	Testing the intercrops efficiency for higher productivity in maize	Low productivity	7	To 1 - Inter cropping of Maize+ Black gram, Seed treatment with Bio fertilizer and bio fungicides To 2 - Inter cropping with Maize+ Bush cowpea
2007-08	Sugarcane	Iron deficiency management in sugarcane	low yield and quality and high cost of production	18	To 1 - Basal application of 100 kg Ferrous sulphate + foliar application of Fe @ 2% at 90,105& 120 days after planting To 2 - Basal application of20 kg of Ferrous sulphate along with foliar application of Fe at initial stage @ 5 kg of urea + 5kg of ferrous sulphate at 15 days interval 3 times
2007-08	Paddy	Herbicide efficiency for cost reduction and high productivity	Labour scarcity and high cost of production	15	To 1 - 2.5/Thiobencarb-2.5l/Fluchloralin-1l/) along with one hand weeding on 30-35 DAT To 2 - (Butachlor -2.5l/ha) and Post emergence herbicide (Almix@4g ai/ha) To 3 -Line planting and weeding by cono weeder 15 DAT at 7 days interval
2007-08	Paddy	Sowing Methods in Labour Scarce area for higher productivity	Labour scarcity and high cost of production	6	To 1 - SRI (BPT 5204) seed rate @ 5 kg/ha (Dapog method of nursery+ Fertilizer application by using LCC) To 2 - Modified SRI (ADT-43). Direct seeding of pre germinated seeds with the help of drum seeder and nutrient application based on LCC

2006-07	Dairy	Repeat breeder management in white cattle	Poor conception rate and increased intercalving period	6	To 1 - IChourlon – 1500 IU during AI I/M Proluton depot 250mg I/M To 2 - Chourlon – 1500 IU during AI I/M, Proluton depot 250mg I/M + Inj Vitamin A 2ml I/M + Inj. Urimin 10ml I/M + Feeding with concentrates and mineral mixture
2006-07	White cattle	Management of Mastitis in white cattle	Low quantity and quality of milk	6	To 1 - Inj. Floxidin 15ml for 3 days I/M + Inj. Betnesol 1ml and inj. Floxidin 3ml I/MAM + Inj Avil 10 ml for 3 days I/M To 2 - Release of T. Chilonis + Micropilitis maculipenis @ 5 cc/ha at 30 DAS (3 times at weekly tervals). Spraying of twigs of Jatropha+ Ipomea+ Calotropis @5 % @ 45 DAS and 5% NSKE based on the needs.
2006-07	Castor	IPM for the hairy caterpillar and semi looper	Damaged by *Euproctis fraternal* and *Achaea janata*	5	To 1 - Carbaryl 50wp 2kg in 1000 litre of water To 2 - Release of T. Chilonis + Micropilitis maculipenis @ 5 cc/ha at 30 DAS (3 times at weekly tervals). Spraying of twigs of Jatropha+ Ipomea+ Calotropis @5 % @ 45 DAS and 5% NSKE based on the needs.
2006-07	Sunflower	IPM for *Spodoptera litura* and *Helicoverpa armigera*	Incidence of *Spodoptera litura* and *Helicoverpa armigera*	5	To 1 - KBSH-1 + Mechanical collection and destruction of different stages of insect + spray of Endosulfan @ 2 ml/lit of water at 30 DAS To 2 - KBSH-1+ spray of NSKE @ 5% at 30 & 40 DAS. Spraying of HaNPV & SlNPV@250 LE each at 45 & 60 DAS

2006-07	Sugarcane	IPM techniques for the control of woolly aphid	Reduction of yield and low quality of sugar content due to incidence of Woolly aphid	5	To 1 - Spraying of dicophol @ 1lit/ha To 2 - Sugarcane setts variety resistant to woolly aphid. Spraying of acephate @ 10 g /litre (twice) at 20 days interval + Bacillus thuringiensis @ 1litre /ha
2006-07	Jasmine	Efficiency of biofertilizer in jasmine	Reduction of yield and quality due to insufficient application of fertilizers	3	To 1 - FYM 10kg + 60 : 120 : 120 g / plant in 2 split doses To 2 - FYM 10kg +45:90:120g NPK / plant in 2 split doses + Azospirillum and Phospho bacteria each at 50 g / plant
2006-07	Jasmine	INM in Jasmine	Reduction of yield & quality due to Physiological changes by Fe deficiency	5	To 1 - Spraying of FeSo4 0.5% at monthly intervals from the appearance of symptom (6 times) To 2 - FeSo4 @ 0.5 % (4 times) at 1 month interval
2006-07	Rose	Aphid management	Flower size reduction due to Aphid incidence	10	To 1 - Spraying of Dimethoate @ 2ml/lit To 2 - Imidachloprid @ 0.3 ml/lit (2 times) at 20 days interval from flower formation
2006-07	Sunflower	Efficiency of hybrid in sunflower		6	To 1 - TNCSH-1 To 2 - KBSH44
2006-07	Groundnut	Nutrient management in Groundnut		6	To 1 - 400kg of gypsum + 12.5kg of micronutrient To 2 - 400kg of gypsum + 6.25kg along with 0.5% Zn So4 + 1% FeSo4 + 0.2% Boron

2006-07	Black gram	Nutrient management in black gram	3	To 1 - Foliar application of DAP @ 2% at 30 and 45 DAS + Planofix (4ml/4.5 litre of water) immediately after spray of DAP To 2 - Seed soaking with Mn So4 @ 8% (two hours) + Recommended practice
2005-06	Banana	Management of Pseudostem Weevil in Banana	1	To 1 - Pseudostem traps @ 100/ha, Monocrotophos 36 WSC 1ml To 2 - Imidacloprid 70 WS @ 5KG of seeds + spraying of Imidacloprid 200SL @ o.1 ml/lit
2005-06	Sunflower	Management of Viral disease (Tobacco streak virus) in sunflower	1	To 1 - Monocrotophos @ 2 ml/ lit To 2 - Imidacloprid 70 WS @ 5KG of seeds + spraying of Imidacloprid 200SL @ o.1 ml/lit
2005-06	Sunflower	Techniques for productivity improvement in Sunflower	1	To 1 - Micornutrient mixture@12.5kg & 2.5kg Borax dust To 2 - Rubbing heads with muslin cloth + Borax spray @ 0.2%
2005-06	Groundnut	Weed management in Groundnut	1	To 1 - Fluchloralin 2lit/ha To 2 - Pendimethalin 2.5lit/ha
2005-06	Blackgram	Management of root rot in blackgram	1	To 1 - Carbendazim @ 2g/Kg Pseudomonas flourescens @ 2.5 Kg/ha To 2 - Neem cake @ 150Kg/ha Pseudomonas flourescens @ 10 g/Kg & 2.5Kg/ha
2005-06	Chilli	Flower and Fruit drop management in chilli	1	To 1 - Planofix 0.25ml/lt ,Vipul 0.25ml/lt To 2 - Planofix 0.25ml/lt Vipul 0.25ml/lt Imidachloprid 0.25ml/lt

2005-06	Banana	Management of Panama wilt disease, Fusarium wilt in Banana	1	To 1 - Plant suckers without any treatment To 2 - carbendazion 50 WP @ 60mg 40g of carbofuran 3g To 3 -30g of carbofuran,20g psendomonas
2005-06	Jasmine	Management of Eriophyid mite in Jasmine	1	To 1 - Monocrotophos 36 WSC @ 1 lit/ha To 2 - Wetttable sulphur 50% @ 2g/lit To 3 -Triazophos @ 2ml/lit + Dicofol @ 2ml/lit
2005-06	Maize	Chemical Weed Management in Maize	1	To 1 - Two hand weeding To 2 - Alacholar 4 lit / ha + One hand weeding To 3 -Atrazine 1 Kg / ha + Alacholar 2 Kg / ha
2005-06	Paddy	Micronutrient management in paddy	1	To 1 - Zn Sulphate @ 0.5% To 2 - 12 traps /ha,Zn Sulphate @ 25 Kg/ha + 0.5% of Zn Sulphate foliar spray at 20, 30 and 45 DAT To 3 -Zn solublising bacteria @ 1.25Kg + broadcasting of Zn solublising bacteria @ 7.5 Kg
2005-06	Paddy	Management of yellow stem borer in paddy	1	To 1 - Endosulfan @ 1Lit /ha To 2 - 12 traps /ha,Phosphomidon 85 WSC 300 ml/ha. To 3 - Trichogramma japonicum @5cc ,NSKE 5%