



**ANNUAL ACTION PLAN
OF
KVK ANANTNAG**

FOR THE YEAR 2021-22



DIRECTORATE OF EXTENSION
SHER-E-KASHMIR UNIVERSITY OF AGRICULTURAL
SCIENCES AND TECHNOLOGY OF KASHMIR

KVK Manpower and Facilities	
Programme Coordinator	01
No. of SMSs in position	04
No. of Prog. Assistants	01
Supporting staff	02
Driver	01
Total Land with KVK (in ha)	9.6
Under Buildings	04 kanal
Under Demonstration Units	4
Orchard/Agro-forestry	10

Operational areas details proposed		
Crop/ enterprise	Problem (Quantify)	Nature /mode of intervention
Paddy	Abiotic and biotic stress,Cold injury, Low yield , Nutrient imbalance	OFT, FLD and Training
Maize	Non availability of quality seed of early maturing varieties,Low productivity due to imbalanced nutrition and high incidence of weed and Lack of IPM	FLD, Training and Field days
Brown Sarson	Poor drainage, Higher seed rate, Incidence of aphids,Imbalanced nutrition	FLD, Training and Field days
Rajmash	Incidence of wilt, Incidence of leaf spot, Non availability of quality seed of SKUAST-K released varieties	FLD
Moong	Non availability of quality seed of SKUAST-K released varieties and Incidence of wilt	FLD
Fodder Oats	Non-availability of quality seed and Imbalanced Nutrition	FLD
Vegetables	Lack of quality seed, Lack of knowledge about seed production ,Shortage of vegetables during offseason	OFT and Training
Apple	Faulty training and Pruning,proper INM, IDM & IPM, Improper plant propagation techniques, Russeting, Monocrop, Lack of pollinizers, Poor quality and yield	OFT, FLD and Training
Walnut	Non descriptive cultivars. Higher gestation period. Poor quality & market due to traditional varieties. Lack of budded / grafted walnut	Training

Honey Production	Lack of disease management. Seasonal management. Migration	Training
Crops & enterprises	Lack of knowledge on improved agricultural technologies in crops & livestock enterprise	Training
SHGs	Unemployment for young women	Training
Resource related problem (Soil & Cropping System)	Less soil fertility due to non-addition of organic manures & imbalanced nutrients, Erosion due to lack of soil and water conservation measures in sloppy areas, Less income due to non-adoption of crop diversification and enterprises in the existing cropping system	OFT, FLD and trainings
Rural Youths	Decreased interest of rural youths in agriculture & allied enterprises, Lack of orientation on self-employment avenues, Lack of capital for investment	Trainings

Details of Operational areas proposed		
Cluster	Name of cluster villages identified for	Target commodity for intervention
Cluster-1	Bragam, Kreri, Nowpora, Qammer, Thamankot, and RakhBrah	Focus on field crops & livestock
Cluster-2	Madhama, Semthan, Kanalwan, Bhijbehara, Khiram, Sirhama, Nambal, Sirgufwara	Focus on apple, field crops & Dairying

Proposed Intervention based on Prioritized Problem

AGRONOMY

On Farm Testing

Crop	Title of OFT	Technology Options	No. of trails	Parameters to be studied	Team Member	Cost/ Demo
Paddy	Modified System of Rice Intensification for Higher Productivity	T1: Traditional method of cultivation (FP) T2: Recommended method of cultivation T3: SRI Technique	03	Number of effective tillers/hill Grain yield Harvest index Economic returns	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Shazia Ramzan	15000

Front Line Demonstrations

Crop	Technology demonstrated	Variety/ Critical input	Farming situation	No. of Demo	Area (ha)	Team Member	Cost involved
Maize	Popularization & Seed production of KG-2 Maize at an elevation of 2000-2800 m amsl.	Seed & Fertilizer	Rainfed	15-20	15	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr. Shazia Ramzan	90000/-
	Demonstration of Hybrid Maize in collaboration with DARS, Budgam			5-8	2.0	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr. Shazia Ramzan	15000/-
	Demonstration of QPM in collaboration with DARS, Budgam			2	0.4	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie	
Paddy	Varietal evaluation of High Yielding varieties of Rice (SR 4) Plains of District upto an altitude of 1700 m amsl	Seed & Fertilizer	Irrigated	23	7.0	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr. Shazia Ramzan	63000/-
	Varietal evaluation of High Yielding varieties of Rice (SR5) at an altitude of > 2000 m amsl			05	01		9000/-

CFLD	CFLD Kharif (Rajmah)	Seed & Fertilizer	Irrigated	10-20	10	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr Ishtiyaq A Khan	90000/-
CFLD	CFLD Rabi (Pea)	Seed & Fertilizer	Irrigated	10-20	10	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr Ishtiyaq A Khan	90000/-
Oilseed	CFLD Brown sarson (Shalimar Sarson 2 & 3).	Seed + fertilizer	Rainfed	10 - 20	05	Dr. Manzoor Ahmad Ganai Dr. Shabir Ahmad Ganaie Dr. Ishtiyak Ahmad Mir Dr. Shazia Ramzan	54000/-
Paddy	Popularization of Paddy transplanter among paddy growers of District Anantnag through Demonstrations	Seed and fertilizer	Irrigated	04	1	Dr. Manzoor Ahmad Ganai Dr. Shazia Ramzan Dr. Shabir Ahmad Ganaie	10000/-
Walnut	Popularization of Walnut Dehuller among walnut growers of District Anantnag through Demonstrations	Ethphan	Rain fed	07	7	Dr. Shabir Ahmad Ganaie Dr. Manzoor Ahmad Ganai Dr. Shazia Ramzan	15000/-

Awareness for Farmers/ Extension Functionaries

S.No	Training Title	No. of Trainings	No. of Days
1	Integrated management of rice blast	01	05
2	Awareness regarding maize Sheller/paddy thrusher	01	07
3	Intercropping of Legumes with maize	01	02
4	Water Harvesting	01	05
5	Awareness regarding protected cultivation	01	10
6	Self-employment avenues for rural youth	01	02

Training for farmers/rural youth

S.No	Training Title	No. of Trainings	No. of Days
1	Post harvest management of fruits and vegetables.	01	10
2	Seed production technology and nursery management in Rice.	01	03
3	Intercropping of Legumes with maize	01	2
4	Role of farm mechanization in crop production	02	03
5	Water Harvesting	03	01
6	Protected cultivation in vegetables	02	02

Training for Extension persons

S.No	Training Title	No. of Trainings	No. of Days
1	Economic production of field crops.	02	03
2	Techniques of data collection.	01	02
3	Farm mechanization for drudgery reduction	02	03
4	Effective Communication Skills.	01	02
5	Techniques for water Harvesting	01	02
6	Post-harvest management of vegetables.	02	06
7	Entrepreneur opportunities of rural youth	01	02
8	Processing and Marketing of Agriculture products.	02	03

Vocational Trainings

S.No	Training Title	No. of Trainings	No. of Days
1	Cutting and Tailoring	01	60

Proposed Seed Production at Kendra

S No	Particulars	Area
1	Maize (Parental line)	0.5
2	Beans	0.5
3	Moong / Cowpea	0.5
4	Oats	01
5	Pea	01
6	Oilseed	0.5

SOIL SCIENCE

On Farm Testing

Crop	Title of OFT	Technology Options	No. of trails	Parameters to be studied	Team Member
Apple	Assessment of Biofertilizer enriched vermi-compost application in Apple	T1: Farmers practice T2 : Fertilizer dose based on soil test T3 : Fertilizer dose based on soil test +Vermicomposting +PSB+KSB	03	Quality Yield (kg/tree)	Dr. ShaziaRamzan, Dr. Manzoor A. Ganai Dr. Shabir Dr. Ishtiyaq A. Khan
Maize	Changes in Soil Chemical Properties Resulting from Integrated farming system	T1: Farmers Practice (FP) T2 : Fertilizer+ FYM + Compost + Vermicompost + Biofertilizer	03	Soil Health	Dr. ShaziaRamzan, Dr. Manzoor A. Ganai Dr. Shabir

Frontline Demonstration

Crop/ Enterprise	Prioritized Problem	Technology to be Demonstrated	Source of Technology/ Collaboration	No. of trails	Parameters to be studied	Team Member
Apple	Imbalanced fertilizer application	Demonstration of proper time and method of fertilizer application.	SKUAST-K	03	Yield (kg/tree)	Dr. ShaziaRamzan Dr. Manzoor A. Ganai Dr. Shabir
Decomposition of Organic Waste	Improper decomposition of Organic Waste	Popularization of scientific ways of Organic Waste decomposition using Shalimar Microbe.	SKUAST-K	03	Time	Dr. ShaziaRamzan Dr. Manzoor A. Ganai Dr. Shabir
Preparation of Vermicompost	Lack of awareness regarding Vermicompost technology	Demonstration of preparation of Vermicompost.	SKUAST-K	03	Quality parameters	Dr. ShaziaRamzan Dr. Manzoor A. Ganai Dr. Shabir

Awareness for Farmers/Extension Functionaries

S.No	Training Title	No. of Trainings	No. of Days
1	Importance of INM in fruit trees	03	02
2	Awareness regarding preparation of compost and Vermicompost	03	02
3	Soil test based fertilizer application.	03	02
4	Methods of Fertilizer Application in Apple Orchards	03	02
5	Techniques for collection of leaf samples from apple orchards	03	02
6	Bio fertilizer application in different crops	03	01

Training for Farmers

S.No	Broader term	Training Title	No. of Trainings	No. of Days
1	Nutrient management in fruit crops/Field crops	Proper timing and method for fertilizer application in fruit crops.	25	25
		Scientific method for soil and leaf sample collection	03	03
		Visual deficiency symptom in apple and their correction	04	04

Training for Rural Youth

S No.	Thematic Area	Training Title	No. of Trainings	No. of Days
1.	Soil Health and Fertility	Scientific methods for preparation of On-farm compost and Vermicompost using microbial cultures	01	07
		Soil testing using STFR meter	01	10

Training for Extension Personal

S.No	Training Title	No. of Trainings	No. of Days
1.	Preparation of Vermicomposting and On Farm Compost	01	07
2.	Soil and Leaf sampling technique	01	03

HORTICULTURE

On farm testing

Crop	Prioritized Problem	Title of technology	Details of Technology	Source	Trials	Observations	Estimated cost/demo
Apple	Pre- harvest fruit drop Poor yield	Assessment of different growth regulators for management of pre-harvest fruit drop in apple	T ₁ : Use of non-specific Chemicals - (FP) T ₂ : NAA @ 10ppm before 03 weeks of Anticipated Harvest (WBAH) – (RP) T ₃ : 2,4,5-TPA @ 30 ppm 04 weeks before Anticipated Harvest – (RP)	SKUAST-K	03	% Pre harvest fruit drop Yield (kg/tree)	Rs. 7500/-
Apple	Biennial bearing Low yield poor quality	Assessment of different post bloom chemical thinners on the regularity of bearing and quality of apple under High Density plantation (HDP)	T1: Farmers Practice –no thinning (FP) T2 : NAA @ 15 ppm (RP) T3 : BA @ 150 ppm (RP)	SKUAST-K	03	Yield (Kg/tree) Quality (% A grade) Return bloom (%)	Rs 1700/-

Frontline Demonstration

Crop/ Enterprise	Prioritized Problem	Title of FLD	Technology to be Demonstrated	Source of Technology / Collaboration	No. of trails	Parameters to be studied	Estimated Cost (Rs/demo)
Apple	Poor Fruit set, Poor Yield and Quality	Popularization of Boron and Bouquet Pollination on Fruit set, quality and yield in Apple	Boron Sprays and Bouquet Pollination	SKUAST-K	05	Yield (Kg/tree) Quality (% grades) Economics	Rs 8000/-
Apple	Low Yield and Poor quality	Popularization of Improved Cultivars of Apple through Rejuvenation (Top Working)	Jeromine Scartlet Spur Royal Gala Super chief Sandige Granny Smith	SKUAST-K	08	Success(%) Annual shoot growth (cm)	Rs.24000

Training/Awareness/Method demos for Farmers/Farm Women

S.No	Training Title	No. of Trainings	No. of Days
1	Layout, Planting and Early care of temperate fruit crops	03	01
2	Propagation Techniques in Temperate Fruit crops with special reference to walnut	02	02
3	Methods of Fertilizer Application in Apple Orchards	02	02
4	Role of Pollinizers/Pollinators in Temperate fruit crops	03	02
5	Importance of Mulches in different fruit crops	02	01
6	Budding Techniques in fruit crops	02	02
7	Techniques for collection of leaf samples from apple orchards	02	02
8	Scientific techniques of harvesting, grading/packining and truthful labelling in apple	01	01
9	Scientific Training and pruning to improve quality and productivity in apple.	07	01
10	Protected cultivation of vegetable crops.	01	01
11	Production management technology of cut flowers.	01	02

Training for Extension Functionaries

S.No	Training Title	No. of Trainings	No. of Days
1	High Density Orchardling in Apple-A Way Forward	02	01
2	Strategies to overcome Production Constraints in Temperate Fruit crops	02	01

Training for Rural Youth/Entrepreneurs

S No.	Training Title	No. of Trainings	No. of Days
1	Raising Clonal rootstocks of Apple/Mass Multiplication of Clonal rootstocks of Apple	01	07
2	Propagation Techniques of walnut under protected conditions	01	02
3	Training and pruning to improve quality and productivity in apple with special reference to HDP Apple	01	10

ANIMAL SCIENCES
On Farm Testing

Crop	Problem	Title of technology	Technology	Source	critical inputs	Quantity	Amount / demo	Demo	Amount	Parameters to be studied
Cattle	Low Milk Production in dairy cattle. Poor Body condition score.	Urea Molasses Mineral Block-a cost effective feed supplement for increasing milk production.	T ₁ : Farmers practice (FP) T ₂ : UMMB as lick @200-500gm/day/ animal for 2 months.	SKUAST-K	UMMB	150	7500	2 (10 cows each)	15000	Milk yield Body condition score
Sheep	Foot rot. Poor body condition. Low Body weight gain	Management of foot rot in sheep	T ₁ : Farmers practice(FP) T ₂ : Foot bath 10% copper sulphate + Antibiotics as per recommended dose(RP) T ₃ : Foot bath 10% copper sulphate + zinc dusting of wound +Antibiotics as per recommended dose (Refinement)	SKUAST-K	Zinc Copper sulphate Antibiotics		5000	3 (20 ewes each)	15000	Body condition score Body weight gain Recovery percent

Front line demonstrations

Crop	Thematic area	Problems	Technology title	Source of technology	Technology	Critical inputs quantity	Cost of demo	No of demos	Total cost	Parameters studied
Livestock	Dairy animals (Cross-Bred cows)	Incidences of Mastitis in cross bred cows. Decrease milk production.	Prevention of mastitis in dairy cattle	PAU-Ludhiana	Povidine iodine and glycerin teat dip.	Povidine iodine =40 and glycerin =40	6000	02 of 20 cows each	12000	Percent Incidence of mastitis Milk production

	Sheep	Lack of feed & fodder during winter. Incidence of pre & post-partum problems in sheep during winter	Impact of feeding conc. supplementati on during transition period in pregnant ewes	SKUAST-Kashmir	Conc. Diet	5kg per ewe(for 20days) = 150kg	3750	02 of 15 sheep each	7500/	Birth weight of lamb Growth rate Mortality in lamb if any
	(Backyard Poultry) Kuroiler Chicks	<ul style="list-style-type: none"> • Low body weight • Low egg production • Low feed conversion efficiency • Low Socio-Economic status 	Popularization of Kuroiler birds under Backyard poultry system	SKUAST-Kashmir	Kuroiler chicks	10	800	05	4000/	Body weight gain Egg production. Mortality if any

I). Trainings for Farmers / Farmwomen.

Sr. No	Title of training	No. of trainings	No. of days
1)	Importance of vaccination in livestock production.	02	02
2)	Demonstration on clean milk production.	01	01
3)	Demonstration on good quality hay and silage preparation.	02	02
4)	Demonstration on value addition of milk and milk products.	01	05
5)	Management of backyard poultry birds.	01	01
6)	Demonstration on urea treatment of wheat and paddy straw.	01	01

II). Trainings for Rural Youth.

Sr. no	Title of training	No. of trainings	No. of days
1)	Demonstration on balanced feed formulation from available feed resources.	02	01
2)	Demonstration on preparation of UMMB.	02	01
3)	Scientific management of commercial poultry farming (broiler production).	01	04
4)	Entrepreneurship opportunities in Sheep Farming	01	05
5)	Entrepreneurship opportunities in Dairy Farming	01	05
6)	Entrepreneurship opportunities in Integrated Farming System	01	05

III). Trainings for extension personals

Sr. No	Title of training	No. of trainings	No. of days
1)	Repeat Breeding problems in dairy cows.	01	01
2)	Metabolic diseases and their Prevention in dairy cows.	01	03
3)	Importance of Organic Livestock Farming.	01	01

**Plant Protection:
On Farm Testing**

Crop	Problem	Title of technology	Technology	Source	Demo	Parameters to be studied
Apple	Hail injury	Management of diseases and deformities post hail injury in Apple.	T ₁ : Farmers practice (FP) T ₂ : Zineb + Hexaconazole (100 g / 100 ltrs of water; “or” Metiram 55% + Pyraclostrobin 5%) fb urea @ 200 g T ₃ : Carbendazim + Mancozeb @ 100 g	SKUAST K	2	% injury recovery
Apple	Flower damage due to insects	Integrated Management of Apple blossom thrips in Apple	T₁ : Farmers practice (FP) T₂ : Thiocloprid @ 0.5 ml/ltr of water T₃ : Emamectim benzoate 5%	SKUAST K; + Research from Papers	2	% thrip mortality (DAT)

Front line demonstrations :

Crop	Prioritized Problem	Title of technology	Details of Technology	Source	Trials	Observations	Estimated cost/demo
Apple	Root rot	Integrated management of root rot in Apple with use of Trichoderma (New)	T ₁ : Farmers practice (FP) T ₂ : Removal of soil from root surface. Soil drenching with Carbendazim + Mancozeb 75WP (0.5%) (RP) T ₃ : Soil application with bioagent (<i>Trichoderma viridi</i>)	SKUAST-K	03	% incidence damage	7500/

Details of training programmes:

Sr. no	Title of training	No. of trainings	No. of days
1)	Integrated management of diseases and insect pests of rice	Rural youth / farmers / Farm women	3-5
2)	Integrated management of root-rot and collar-rot of apple	Rural youth / farmers / Farm women / In Service Extension Functionaries	5-7
3)	Integrated management of foliar diseases of apple	Farmers / Farm women / In Service Extension Functionaries	5-7
4)	Integrated management of apple insects and pests	Farmers / Farm women	3-5
5)	Integrated management of major disease of vegetable crops in the region	Farmers / Farm women	3-5
6)	Safe and effective use of pesticides	Rural youth / farmers / In Service Extension Functionaries	3-5

Sr. no	Title of training	No. of trainings	No. of days
	Scientific methods of bee Keeping	Farmers / Farm women / Rural youth	2-3
	Economic production of cocoons	Farmers / Farm women / Rural youth	2-3
	Production, management and marketing technology of cocoons	Rural Youth	2 programmes each 5 days
	Commercial mushroom cultivation	Rural Youth	2 programmes each 5 days

Important campaigns in collaboration with line departments:

- **Integrated disease & insect pest management in fruit crops**
- Seasonal Management of Honeybees and bee keeping as an important input in increasing crop production
- Integrated Rodent Management in apple orchards
- Role of orchard sanitation in prevention of diseases and pests in Apple.
- Management of apple blossom thrips.
- Management of Rice blast.
- **Celebration of world Honey bee Day (Date: 20th May, 2021)**

Extension Activities	
Advisory Services	NEED BASED
Diagnostic visits	NEED BASED
Field Day	NEED BASED
Group meeting	NEED BASED
KisanGhoshi	NEED BASED
KisanMela	NEED BASED
Exhibition	NEED BASED
Scientists' visit to farmers field	NEED BASED
Plant/Soil health/Animal health camps	NEED BASED
Farm Science Club	NEED BASED
Ex-trainees Sammelan	NEED BASED
Farmers' seminar/workshop (Climate change, Farm Implements, medicinal plants)	NEED BASED
Method Demonstrations	NEED BASED
Celebration of important days	NEED BASED
Special day celebration	NEED BASED
Exposure visits	NEED BASED
Technology week,	NEED BASED
Farm innovators meet	NEED BASED
Awareness programs	NEED BASED

Other Extension activities

- ✓ Animal Diagnostic visits
- ✓ Animal clinical camps
- ✓ Need based awareness and training programmes
- ✓ Celebration of special days.
 - World veterinary Day last Saturday of April.
 - World Milk day 29th May
 - World Zoonoses Day 6th July
 - World Rabies day 28th September
 - World egg day. 12th October
 - World hug a sheep day 28th October.
 - Breast Feeding Week 1st -7th August
 - Swachta Pakawarda 16th-31st December
 - Farmers Day 23rd December.