ANNUAL REPORT (Jan to December 2020) –KVK, Baghpat

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	62	926	320	1246
Rural youths	01	0	10	10
Extension functionaries	11	105	60	165
Sponsored Training	0	0	0	0
Vocational Training	0	0	0	0
Total	**74**	**1031**	**390**	**1421**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	47	20.0	-
Pulses	40	10	-
Cereals	15	2.64	-
Vegetables	05	0.4	-
Other crops	10	1.0	-
Hybrid crops	0	0	-
Total	**117**	**34.04**	-
Livestock & Fisheries	0	0	-
Other enterprises	30	0.3	-
Total	30	0.3	-
Grand Total	**147**	**34.34**	-

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	07	21	21
Livestock	-	-	-
Various enterprises	-	-	-
Total	07	21	21
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total			

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	265	6338
Other extension activities	36	mass
Total	301	6338+

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterpri se	Total
	Text only	328	05	22	0	15	0	370
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	328	05	22	0	15	0	**370**
	Total farmers Benefitted	**1700**	**518**	**792**	**0**	**350**	**0**	**3360**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	396.76 q	763763.00
Planting material (No.)	-	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	935	74860.00
Total	**935**	**74860.00**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	1
2	Conferences	2
3	Meetings	8
4	Trainings for KVK officials	0
5	Visits of KVK officials	0
6	Book published	0
7	Training Manual	0
8	Book chapters	0
9	Research papers	0
10	Lead papers	0
11	Seminar papers	0
12	Extension folder	7
13	Proceedings	2
14	Award & recognition	0
15	On going research projects	2

DETAIL REPORT OF APR-2020

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra, Baghpat – 250 609 Website: www.baghpat.kvk4.in	9456449671	-	kvkbaghpat1@gmail.com

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail
	Office	FAX	
Sardar Vallabhbhai Patel University of Agriculture, Meerut Website: www.svbpmeerut.ac.in	0121-2888522, 2888511	0121-2888505, 2888540	deesvpuat2014@gmail.com

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Gajendra Pal	-	09456449671	gajendrapal1960@gmail.com

1.4. Year of sanction: 2004 (27–10-2004)

1.5. Staff Position (as on 31st December, 2020)

Sl. No.	Sanctioned post	Name of the incumbent	Design-ation	Subject	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Perman-ent /Temp-orary	Categ ory (SC/S T/ OBC/ Others)	Mobile no.	Age	Email id
1	Programme Coordinator	Dr. Gajendra Pal	Professor & Head	Agronomy	37400-67000	81280	27.06.87	Permanent	OBC	9456449671	61	gajendrapal1960@gmail.com
2	Subject Matter Specialist	Dr. Sarita Joshi	Professor	Home Science	37400-67000	66040	26.08.95	Permanent	Others	9871134441	51	sarita joshi156@yahoo.com
3	Subject Matter Specialist	Dr. Sundeep Chaudhary	Professor	Agronomy	37400-67000	58830	01.01.96	Permanent	OBC	9412311502	52	sundeep.barau t@gmail.com
4	Subject Matter Specialist	Sh. Amit Chaudhary	SMS/Asstt. Professor	Horticulture	15600-39100	33740	09.12.03	Permanent	OBC	9897060189	50	amitchaudhary 1368@gmail.com
5	Computer Programmer	Sh. U.S. Rathi	Programme Asstt.	Computer	9300-34800	53600	30.07.07	Permanent	OBC	9012347688	40	uttam.svp@gmail.com
6	Programme Assistant	Dr. Ravindar Kumar	Farm manager	Soil Science	9300-34800	53600	02.08.07	Permanent	OBC	8923482015	45	malikrk007@gmail.com
7	Farm Manager	Dr. Bhupendra Kumar	Programme Asstt./ Farm Manager	Plant Breeding	9300-34800	52000	03.09.08	Permanent	SC	9368651430	45	Bkdheeraniya75@gmail.com
8	Accountant / Superintendent	Sh. Sanjeev Chandel	O.S. Cum Accountant	Accountancy	9300-34800	66000	10.12.03	Permanent	OBC	9410860477	45	sanjeevchandel2012@gmail.com
9	Stenographer	Sh. Praveen Kumar Premi	Stenographer	-	5200-20200	39200	26.12.08	Permanent	SC	9718476096	45	pkpremi1975@gmail.com
10	Driver	Sh. Papin Kumar	Driver Cum Mechanic	-	5200-20200	30500	26.12.08	Permanent	OBC	8057332297	43	-
11	Supporting staff	Sh. Salekh Chand	Watchman	-	4440-7440	36400	01.12.92	Permanent	Others	9997530844	46	kvksalek@gmail.com

1.6. Total land with KVK (in ha) : 12.642 ha

S. No.	Item	Area (ha)
1	Under Buildings	3.000
2.	Under Demonstration Units	0.600
3.	Under Crops	8.242
4.	Orchard/Agro-forestry	0.400
5.	Others (Crop Cafeteria)	0.400

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of constr-uction
1.	Administrative Building	ICAR	-	510	43.65	-	-	-
2.	Farmers Hostel	ICAR	-	300	22.92	-	-	-
3.	Staff Quarters (6)	ICAR	-	400	26.72	-	-	-
4.	Demonstration Units (2)	ICAR	-	160	11.06	-	-	-
5	Fencing	ICAR	-	2000 RM	38.43	-	-	-
6	Rain Water harvesting system	ICAR	-	1000 RM	8.26	-	-	-
7	Threshing floor	ICAR	-	300	2.34	-	-	-
8	Farm godown	ICAR	-	60	3.63	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Marshal Jeep	Not available	-	-	-
Motorcycle	2006	46,575.00	93122	Not Good

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Tractor Sonalika	2005	3,44,500.00	Good
12 Disc Harrow	2005	20,275.00	Good
Cultivator	2005	12,265.00	Good
Seed Drill Fert.	2005	19,015.00	Good
Tractor Pulley	2005	1,825.00	Good
Knapsack Sprayer (16 lit.)	2005	714.00	Good
Bund farmer blade	2005	2,860.00	Good
Leveler	2006	5,080.00	Good
Rigertin Far	2006	5,610.00	Good
Two tier tractor trolley	2006	65,106.00	Good
LCD Projector	2007	5700.00	Good

1.8. A). Details SAC meeting* conducted in the year 2020

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	31-01-2020	1. Dr. S.K.Sachan, Director Extension, SVPUA&T, Meerut 2. Dr. Parveen Malik, Director, CCS National Institute of Animal husbandry, Baghpat 3. Sh. Parshant Kumar, Dy. Director, Agriculture, Baghpat 4. Dr. Sarita Joshi, Professor, KVK, Baghpat 5. Sh. Surya Pratap Singh, DAO, Baghpat 6. Dr. Sandeep Singh, Jt. Director, NIAM 7. Dr. Hariom Katiyar, Asstt. Prof., SVPUA&T, Meerut 8. Dr. Anil Kumar, DCO, Baghpat 9. Mohd. Saleem, Fisheries department , Baghpat 10. Sh. Satender, DAO, Baghpat 11. Sh. Lokender Kumar, DAO, Baghpat 12. Sh. Ved Prakash, SMS, Agri. Deptt., Baghpat 13. Sh. Someer Puri, NABARD, Baghpat 14. Sh. Rajpal Singh, ADO, PPO, Baghpat 15. Sh. Veer Singh Tomar, ADO, PPO, Baghpat 16. Sh. Samtar, Sugarcane Deptt., Baghpat 17. Sh. Vinod Tiyagi, Progressive Farmer, Pilana 18. Sh. Aadiprakash Tiyagi, Progressive Farmer, Badagaon 19. Sh. Uttam Chaudhary, Progressive farmer, Baghpat 20. Dr. Sandeep Chaudhary, Scientist (Agro.), KVK Baghpat 21. Dr. Amit Chaudhary, Scientist (Hort.), KVK Baghpat 22. Sh. Devender Dhama, NGO, Sankrod, Baghpat 23. Smt. Rakesh, Progressive Farmer, Mavikala, Baghpat 24. Smt. Rajviri Progressive Farmer, Sankarod, Baghpat 25. Sh. Ishwar Tiyagi, Progressive farmer, Naithla, Baghpat 26. Sh. U.S. Rathi, Programme Asstt. (Computer), KVK Baghpat 27. Dr. Ravindar Kumar, Prog. Asstt. (Soil), KVK Baghpat 28. Dr. Bhupendar Kumar, Farm Manager, KVK Baghpat 29. Sh. Sanjeev Chandel, O.S., KVK, Baghpat 30. Sh. Parveen Kumar Premi, Steno, KVK Baghpat 31. Sh. Shyam Singh, Progressive Farmer, Basi, Baghpat	1. Director Extension suggested to make district soil fertility map. 2. Director, National Institute of Animal Health, Baghpat gave suggestion to grow vegetable seedling as per mandate of action plan 3. Director, National Institute of Animal Health, Baghpat gave suggested to ensure participation of women in Agriculture training of programme (Agronomy, Horticulture, Plant Protection etc.) 4. As per suggestion of Director, National Institute of Animal Health, Baghpat Fish Pond, should be better. 5. As Deputy Director Agriculture suggested to organized the various programme as per need in the various blocks of the district. 6. Director, National Institute of Animal Health, Baghpat gave suggestion to utilize leaves of moringa plant, planted at KVK for of cattles. 7. Director Extension suggested to organize programme for cultivation of vegetable through low tunnel method. 8. Director, National Institute of Animal Health, Baghpat gave suggestion to provide all information related to on going & schemes of on line department through one pamphlet.	1. As per suggestion action is required. 2. As per suggestion action is required. 3. Participation of women farmers is being ensured. 4. Total 160 Women of various self help group have been trained. 5. Various programme of KVK including training, OFT and FLD have been organized covering all blocks (Page no.) . 6. Leaves of moringa plants have been utilized for fodder of animals as per suggestion of Director, NIAH, Baghpat. 7. The same is being conducted in other blocks of district like Pilana and Khekra 8. Action required.

		32. Sh. Dev Kumar, S.R.F. NICRA, Baghpat 33. Sh. Papin Dhaka, Tractor Driver, KVK Baghpat 34. Sh. Salekhchand Sharma, Watchman, KVK Baghpat 35. Sh. Gaurav, Khekra, Baghpat 36. Sh. Ankit, Katha, Baghpat		
2.				

**** Attach a copy of SAC proceedings along with list of participants***

2. DETAILS OF DISTRICT (31st December, 2020)

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1	Agriculture + Animal Husbandry
2	Agriculture + Animal Husbandry + Horticulture

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

a) Soil based

S. No.	Agro-climatic Zone	Characteristics
1	North Western Plain Zone	Sub humid to subtropical climate, maximum and minimum temperature 44 ^{o}C and 3 ^{o}C respectively with average rainfall is about 522.19 mm in last 10 years.

b) Topography based

S. No.	Agro ecological situation	Characteristics
1	AES – I	Sandy loam to loam soils, normal PH, Good quality irrigation water, Canal/tube-well irrigation
2	AES – II	Sandy loam to loam soils, normal PH, Good quality irrigation water, slightly undulated and unleveled soils

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Sandy loam to loam with normal pH	The soils have enough clay to store adequate amounts of water and plant nutrients for optimum plant growth, containing enough sand, silt and clay. Clay content is not much as to cause poor aeration or to make working difficult. A soil containing 7 to 27% clay and approximately equal amount of silt and sand has been designated as loam textured soil.	110065

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Sugarcane	74227	866.40	
2	Rice	5866	28.53	
3	Urd	400	8.98	
4	Moong	16	8.12	
5	Arhar	463	7.45	

6	Lentil	51	10.26	
7	Wheat	54904	45.59	
8	Jawar (grain)	50	8.05	
9	Maize	09	25.45	
10	Mustard	1691	13.07	

Source: Statistical 2018-19.

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
-	-	-	-	-

Month	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	0	30.48	64.5	42.2	7	0	54.61	6.35	22.86	76
February	21.69	0	96.75	37.9	11.75	1.27	0	0	49.53	89
March	7.62	4.25	0.75	38.7	75.5	34.29	10.16	0	4.1	83
April	5.08	11.25	6.25	7.9	0	0	3.81	2.54	0	0
May	87.63	0	4	50.4	0	31.75	20.32	10.16	5.5	55
June	106.68	37	112.25	104	66	11.43	148.59	63.5	2.5	42
July	118.27	176.5	125	77.4	85.25	204.47	109.22	266.43	229	86.7
August	162.56	103.5	102.75	75.1	0	131.81	52.07	163.83	71	177.3
September	164.5	74	0	108	0	0	132.08	180.34	0	0
October	0	5.5	0	0	0	0	0	0	0	0
November	0	1	0	0	0	0	0	0	89	0
December	0	23.25	0	5.4	0	0	10.16	0	45	0
Total	**674.03**	**466.7**	**512.25**	**547**	**245.5**	**415.02**	**541.02**	**693.15**	**518.5**	**609**

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
Crossbred	14332	150486 lit./day	10.5 lit./day
Indigenous	21538	139997 lit./day	6.5 lit./day
Buffalo	139763	838578 lit./day	6.0 lit./day
Sheep			
Crossbred	3782	-	-
Indigenous	2924	-	-
Goats	22660	-	-
Pigs			
Crossbred	5866	-	-
Indigenous	16083	-	-
Rabbits			
Poultry			
Hens			
Desi	3446	-	-
Improved			
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish	53.843 Ha.	1615.99 Q	30 Q/ Ha.
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

*Statical report 2012

2.7 Details of Operational area / Villages (31st December, 2020)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Khekra	Khekra	46	Dairy, sugarcane, paddy, wheat, mustard, moong, arhar, poultry & vegetables	1. Low production in late sown wheat 2. Weed infestation in wheat 3. Reducing production area of pulses due to blue horse 4. White grub attack in sugarcane 5. Red rot in sugarcane 6. Late sowing of sugarcane due to wheat-sugarcane system 7. No use of potash in all crops 8. Deficiency of minor elements and organic matter in soil 9. Depletion of ground water 10. Low production of old orchards 11. Insect attack in vegetables 12. Low production of milk in cow & buffalo. 13. Long dry period in milch animals 14. Undeveloped marketing system of Agriculture of produces 15. Less net return in sugarcane based cropping system. 16. Infertility in buffalo and cow and poor health of animal	a. Increase productivity of wheat in late sown conditions. b. Increase milk production in Buffalos. c. Balance use of fertilizer in sugarcane. d. Balance use of fertilizer in wheat. e. Weed management in wheat. f. Management of pests in sugarcane. g. Creating awareness about human nutrition /nutritional needs to mitigate the problems of nutritional deficiency in rural woman & children. h. Management of mango orchards. i. Pest and weed management in paddy. j. Maintenance of soil health. k. Disease management in okra. l. Promotion of oilseed and pulse crops. m. Intercropping with sugarcane. n. Balance diet with mineral mixture and vaccination to animals. o. Renovation of old orchards
2.	Baghpat	Baghpat Pillna	51 50	Dairy, Sugarcane, paddy, wheat, fodder& vegetables Dairy, sugarcane, paddy, wheat, mustard, moong, arhar,& poultry		
3.	Baraut	Baraut Chhapr-auli Binoli	54 27 59	Dairy, Sugarcane, wheat, fodder, &vegetables crops Dairy, sugarcane, wheat, fodder & vegetables sugarcane, wheat, fodder, mustard, paddy, other enterprises- Dairy & poultry		

2.8 Priority/thrust areas

Crop/Enterprise	**Thrust area**
Wheat	Increase productivity of late sown conditions.
	Weed management.
Sugarcane	Management of pests.
Nutritional Management	Creating awareness about human nutrition /nutritional needs to mitigate the problems of nutritional deficiency in rural woman & children.
Paddy	Pest and weed management.
Soil	Maintenance of soil health.
Vegetables	Pest Management and crop husbandry
Oilseed and Pulses	Promotion of oilseed and pulses crops.

2.9 Intervention/ Programmes for the doubling the farmers income –(Jan 2020-Dec. 2020) : Nil

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2020

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	7	30	21	100	34.34	200	147

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	72	62	1440	1246	500	265	12000	6338
Rural youth	10	01	100	10				
Extn. Functionaries	18	11	270	165				
Total	**100**	**74**	**1810**	**1421**	**500**	**265**	**12000**	**6338**

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200.00	396.76	Supply to NSC, Meerut	20000	2160	-

I.A. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Varietal Evaluation	Wheat	Varietal evaluation of late sown wheat	3	3
	Paddy	Varietal evaluation of paddy		
	Wheat	Varietal evaluation of timely sown wheat	3	3
	Okra	Varietal evaluation of Okra	3	3
	Vegetable pea	Varietal evaluation of vegetable pea	3	3
Drudgery Reduction	Wheat	*Use of hanging type grain cleaner with sack holder for cleaning cereals (Wheat)*	3	3
	Onion	*Use of* Twin wheel hoe weeder	3	3
		Total	**21**	**21**

Summary of technologies assessed under various enterprises by KVKs : Nil

I.B. TECHNOLOGY REFINEMENT: Nil

I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

Detail of OFT -1: Low yield of existing varieties

Technology Assessed (as the case may be) : Varietal evaluation of late sown wheat.

KVK Baghpat has conducted On Farm Trial on "Varietal evaluation of late sown wheat" testing variety of late sown wheat DBW 173 along with variety PBW 590 under farmer practice. The results obtained from the trial showed that the variety DBW 173 performed higher yield 46.55 q/ha than PBW 590 with 39.25 qt/ha. DBW 173 gained maximum net profit (Rs./ha.) Rs. 50255.75 in comparison to Rs. 35053.25 from PBW 590.

Technology Option	No. of trials	Area (ha.)	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross returns (Rs)	Net returns (Rs)	BC ratio (Rs)
T_1: PBW- 590 (Farmers Practice)	03	0.48	39.25	-	60128.00	95181.25	35053.25	1:1.50
T_2 :DBW- 173		0.48	46.55	18.59	62628.00	112883.75	50255.75	1:1.80

Sale rate (Rs/q) =Wheat @ 1925/q. & Straw @ 400/q (58.18 q in Demo & 49.06 q in local).

Farmers Feedback: *The variety DBW 173 was found better in terms of high yield and farmers like good for chapatti purpose*

Scientist: *Dr. Sundeep chaudhary, Professor (Agronomy)*

Detail of OFT -2: Low yield of existing varieties of Okra

Technology Assessed (as the case may be) : Varietal evaluation of Okra.

KVK Baghpat has conducted On Farm Trial on "Varietal evaluation of Okra" testing variety of of okra Pusa A-4 and Parbhani kranti under farmer practice. The results obtained from the trial showed that the variety Pusa A-4 performed higher yield 89.20 q/ha than Prabhani kranti with 82.40 qt/ha.

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross returns (Rs)	Net returns (Rs)	BC ratio (Rs)
T_1: local variety (Farmers Practice)	03	76.50	-	17875	76500	58625	1:4.27
T_2 : Parbhani kranti		82.40	17.65	18570	82300	63730	1:4.43
T_3 : Pusa A-4		89.20	20.20	18750	89200	70450	1:4.75


Farmers Feedback: *The variety of okra* Pusa A-4 *was found better in terms of high yield and farmers like .*

Scientist: *Dr. Amit chaudhary, SMS/Asstt. Prof. (Horticulture)*

Detail of OFT -3: Low yield of existing varieties of vegetable pea

Technology Assessed (as the case may be) : Varietal evaluation of vegetable pea.

KVK Baghpat has conducted On Farm Trial on "Varietal evaluation of field pea" testing variety of of okra Pant Sabji matar-5 and local variety under farmer practice. Crop was sown during 15 oct. to 10 Nov., 2020 and the crop are standing at farmer's field.

Result: Awaited.

Scientist: *Dr. Amit chaudhary, SMS/Asstt. Prof. (Horticulture)*

Detail of OFT -4: *DRUDGERY REDUCTION*

Problem definition: *Low work efficiency and injury (backache) in cleaning of grains*

Technology Assessed (as the case may be) :*Use of hanging type grain cleaner with sack holder for cleaning cereals (Wheat).*

Many agricultural operations are performed by women involve a lot of physical strain. Cleaning of grains (wheat) is one of them. Cleaning of wheat through traditional sieve is very time and energy consuming along with causing drudgery to them. In order to enhance the efficiency and reducing drudgery, krishi vigyan kendra Baghpat, conducted a trial by introducing hanging type grain cleaner as T2 (technology option 2) for cleaning of wheat against traditional sieve as farmer practice T1 (technology option 1) on three locations. Result revealed that in T2 average working heart rate(AWHR)of farm women was 100 beats/minute which was quite less as compared to T1(126)and energy expenditure in T2 was found 7.18 KJ/min as compared to T1 (16.05 KJ) Thus activity become comparatively light when performed with T2 .Drudgery is minimized as its been reduced from very severe to mild (moderate pain)

activity when performed with T2 .The result also indicated that the hanging type grain cleaner cleaned 200 kg/hr wheat as compared to traditional sieve 50 kg/hr.

Table :

Technology Option	***No. of trials***	***Parameters observed***	***Data***	***Remark***
T1- Use of traditional sieve*(Farmers Practice)*	*2*	*1. Average working heart rate* *2. Total cardiac cost of work (TCCW)* *3. Physiological cost of work* *4. Energy consumed (EE)* *5. Work efficiency* *6. Pain (shoulder)*	*= 126 beats/min* *= 420 beats/min* *= 28* *= 16.05 KJ/min.* *= 50 Kg/hr* *= very severe*	*In T_2 AWHR of farm women was 97 beats/min, quite less as compared to T_1 and energy expenditure in T_2wa found less (6.7 KJ/min) as compared to T_1 (11.63 KJ/min). Activity was found comparatively light when performed using T_2*
T2- Use of hanging type grain cleaner with sack holder		*1. Average working heart rate* *2. Total cardiac cost of work (TCCW)* *3. Physiological cost of work* *4. Energy consumed (EE)* *5. Work efficiency* *6. Pain (shoulder)*	*=100 beats/min* *= 125 beats/min* *= 8.33* *= 7.18 KJ/min.* *=200 Kg/hr* *=mild*	

Scientist: *Dr. Sarita Joshi, Professor (Home science)*

Detail of OFT -5: *DRUDGERY REDUCTION*

Problem definition: Low efficiency and high drudgery of farm women during weeding in Onion.
Technology Assessed (as the case may be) :*Use of* Twin wheel hoe weeder.

Weeding operation is basically performed or done by women farmer. This task is done by traditional hand tool like khurpi. It is time and energy consuming along with causing drudgery to them. In order to enhance the efficiency and reducing drudgery, KVK, Baghpat conducted a trial by introducing twin wheel hoe as T2 for weeding and hoeing in onion against hand tool khurpi as T1. Its been 05 days seedling have been transplanted and weeding and hoeing would be done after 25-30 days of its transplantation by twin wheel hoe

Result: *Awaited*

Detail of OFT -6: Low yield of existing varieties

Technology Assessed (as the case may be) : Varietal evaluation of timely sown wheat.

KVK Baghpat has conducted On Farm Trial on "Varietal evaluation of timely sown wheat" testing variety of timely sown wheat HD-3117 and HDCSW-18 along with variety HD-2967 under farmer practice. The crop was sown 22 to 26 Nov., 2019 and harvested 25 to 26 April, 2020. The results obtained from the trial showed that the variety HDCSW-18 performed higher yield 53.657 q/ha than HD-3117 with 50.98 qt/ha. HDCSW-18 gained maximum net profit (Rs./ha.) Rs. 76135.00 in comparison to other.

Technology Option	No. of trials	Area (ha.)	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross returns (Rs)	Net returns (Rs)	BC ratio (Rs)
T_1: HD-2967 (Farmers Practice)	03	0.2	48.77	-	25160	93882	68722	1:2.73
T_2 : HD-3117		0.2	50.98	4.53	26480	98137	71656	1:2.70
T_3 : HDCSW-18		0.2	53.67	10.05	27180	103315	76135	1:2.80

Sale rate (Rs/q) =Wheat @ 1925/q.

Farmers Feedback: *The variety* HDCSW-18 *was found better in terms of high yield and farmers like it.*

Scientist: *Dr. Bhupendra Kumar, Programme Asstt. (Genetics and Plant Breeding)*

Detail of OFT -7: Low yield of existing varieties

Technology Assessed (as the case may be) : Varietal evaluation of paddy.

KVK Baghpat has conducted On Farm Trial on "Varietal evaluation of paddy" testing variety of paddy Pusa basmati-1718 with variety Pusa-1121 under farmer practice. The crop was sown 09 to 16 July, 2020 and harvested 25 to 31 Oct., 2020. The results obtained from the trial showed that the variety Pusa basmati-1718 performed higher yield 55.93 q/ha. Pusa basmati-1718 gained maximum net profit (Rs./ha.) Rs. 102670.00 in comparison to other.

Technology Option	No. of trials	Area (ha.)	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross returns (Rs)	Net returns (Rs)	BC ratio (Rs)
T_1: Pusa-1121 (Farmers Practice)	03	0.2	47.92	-	31562	119800	88238	1:1.8
T_2 : Pusa basmati-1718		0.2	55.93	16.72	31562	134232	102670	1:2.5

Sale rate (Rs/q) = Pusa-1121 @ Rs. 2500/q and Pusa basmati-1718 @ Rs. 2400/q.

Scientist: *Dr. Bhupendra Kumar, Programme Asstt. (Genetics and Plant Breeding)*

II. FRONTLINE DEMONSTRATION

a. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2020-21 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Blackgram	Integrated Crop Management	Improved variety MASH-479	Demonstrations and trainings	10	46	20.0
2	Greengram	Integrated Crop Management	Improved variety IPM-2-3	Demonstrations and trainings	21	29	10.0
3	Field pea	Integrated Crop Management	Improved variety IPF 4-9	Demonstrations and trainings	18	28	10.0
4	Paddy	Varietal evaluation	Pusa-1612	Demonstrations and trainings	18	28	10.0
5	Wheat	Varietal evaluation	Improved variety HD-3059	Demonstrations and trainings	10	10	7.9
6	Marigold	Varietal evaluation	Demonstration of improved variety marigold i.e. French	Demonstrations and trainings	06	10	1.0
7	Radish	Varietal evaluation	Improved variety of radish i.e. Japani white	Demonstrations and trainings	05	8	0.8
8	Seasonal fruit and vegetable	Food security	Growing of seasonal fruits and vegetable	Demonstrations, trainings and farmer's fair	10	10	0.1

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during **2020** (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
OILSEEDS										
1	Mustard	Varietal evaluation	Use of improved variety of mustard i.e. RH-749	Kharif 2020	20. 0	20.0	0	47	47	-
PULSES										
1	Green gram	Varietal evaluation	Improved variety PM 5	Kharif 2020	10. 0	10.0	0	40	40	-
CEREALS										
1	Paddy	Varietal evaluation	Improved variety i.e. Pusa-1612	Kharif 2020	4.40	4.40	0	08	08	-
2	Wheat	Varietal evaluation	Improved variety i.e. HD-3059	Rabi 2019-20	0.64	0.64	0	05	05	-
HORTICULTURAL CROPS										
1	Marigold	Varietal evaluation	Improved variety of marigold i.e. Indian Chief	Rabi 2020-21	0.1	0.1	0	10	10	-

2	Radish	Varietal evaluation	Improved hybrid variety i.e. Japani white	Rabi 2020-21	0.4	0.4	0	05	05	-
OTHER CROPS										
1	Vegetables	House hold food security	Availability of fruits and vegetables around the year	Rabi & Zaid	0.15	0.15	0	15	15	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Mustard	Rabi 2020-21	Irrigated	Sandy Loam	0.37	31	232	Kheera	10-20 Oct., 2020	Crop is standing	-	-
Green gram	Kharif 2020	Irrigated	Sandy Loam	0.39	26	214	Paddy	10 June to 01 July, 2020	20-30 Sept., 2020	-	-
Paddy	Kharif 2020	Irrigated	Sandy Loam	0.41	22	234	Wheat-Dhaincha	02 to 12 July., 2020	17-29 Oct., 2020	-	-
Wheat	Rabi 2019-20	Irrigated	Sandy Loam	0.32	10.6	118	Sugarcane	02 to 04 Jan., 2020	24 to 28 April, 2020	-	-
Marigold	Kharif 2020	Irrigated	Sandy Loam	0.42	37	215	Field pea	15-20 July, 2020	10-30 Sept., 2020	-	-
Radish	Rabi 2020-21	Irrigated	Sandy Loam	0.40	38	213	Paddy	20 Oct. to 10 Nov., 2020	Crop is standing	-	-
Vegetables	Rabi & Zaid	Irrigated	Sandy Loam	121	13.9	221	Vegetable	-	-	-	-

Technical Feedback on the demonstrated technologies

S. N.	Feed Back
1	Kitchen garden provided fresh, insecticide and pesticides free vegetable throughout the year. Use of hybrid seeds provided higher yield.
2	The keen interest has been taken regarding the pulse cultivation in existing cropping pattern.
3	Line sowing of wheat by seed drill was found 6% increase in yield and reduction in seed and fertilizer rate upto 20 kg/ha during sowing
4	Intercropping is suitable for sugarcane grower to have additional income.

Farmers' reactions on specific technologies

S. N.	Feed Back
1	By growing kitchen garden at their backyard availability of fruits and vegetable remained throughout the

	year.
2	The problem of wild animal namely blue bull, sheehi and wild pig persist continuously and can be avoided by intercropping of onion.
3	Farmers found that the implements are working better in paddy field rather than sugarcane field.
4	Intercropping of lentil with mustard gave better results.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days/field visit	01	24-12-2020	08	
2	Farmers Training	01	18-11-2020	20	

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops (Cluster frontline demonstration of oilseeds under NFSM)

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Mustard																		
	Varietal evaluation	Use of improved variety of mustard i.e. RH-749	RH-749	47	20					Result awaited								

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops (Cluster frontline demonstration of pulses under NFSM)

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Greengram																		
	Varietal evaluation	Improved variety PM-5	PM-5	40	10	12.5	8.5	10.85	7.5	17.75	19000	52250	33250	1:1.75	19000	44000	25000	1:1.30

Rate: Greengram @ Rs. 5400 / Qtll

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy																			
	Varietal evaluation	Replacement of old variety Pusa 1121 by Pusa 1718	08	4.40	61.6	53.5	58.20	48.92	18.96	-	-	48763	136770	88007	1:2.80	62578	122300	59722	1:1.94
Wheat																			
	Varietal evaluation	Replacement of old variety (PBW 590) by HD 3059 (PusaPachati)	05	0.64	40.5	39.5	40.10	35.75	12.16	-	-	62628	97192	34564	1:1.55	60128	86690	26568	1:1.44

Wheat sowing at farmer's fiel in the presence of scietist

Visit by scientist at farmer;s field of Paddy

Vegetables																			
Radish																			
	Varietal evaluation	Improved hybrid variety of radish i.e. Japani white	05	0.4			**Result awaited**												
Flower crops																			
Marigold																			
	Varietal evaluation	Improved variety of marigold i.e. Indian Chief	10	1.0	202.5	132.7	167.6	142.8	17.36	-	-	57750	150000	92250	1:2.54	41750	75000	33250	1:1.17


Marigold at farmer's field


Radish at farmer's field

Rate (Rs/q) =Wheat @ 1925/q. & Straw @ 400/q (50 q in Demo & 44.68 q in local)
Rate (Rs/q) =Pusa 1718 @ 2350/q. &Pusa 1121 @ 2500/q

FLD on Livestock : Nil

FLD on Fisheries : Nil

FLD on Other enterprises : Nil

FLD on Women Empowerment: Nil

FLD on Farm Implements and Machinery: Nil

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Nutri-gardening	Household food security	Growing of seasonal vegetables and fruits	30	30	302	75	302%	• Duration days – 319 • Saving – Rs. 9060 per annum	• Duration days – 121 • Saving – Rs. 2250 per annum	1625	9060	7435	1:5.57	7700	2250	1480	1:2.9



Average selling price of vegetable @ Rs. 30/kg
Indirect saving of Rs.6300 hal yearly.

FLD on Demonstration details on crop hybrids *(Details of Hybrid FLDs implemented during* **2020***): Nil*

III. Training Programme

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	2	35	0	35	6	0	6	41	0	41
Resource Conservation Technologies	1	17	0	17	3	0	3	20	0	20
Integrated Farming	1	17	0	17	3	0	3	20	0	20
Total	**4**	**69**	**0**	**69**	**12**	**0**	**12**	**81**	**0**	**81**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	19	0	19	3	0	3	22	0	22
Total (a)	**1**	**19**	**0**	**19**	**3**	**0**	**3**	**22**	**0**	**22**
b) Fruits										
Management of young plants/orchards	1	18	0	18	2	0	2	20	0	20
Export potential fruits	1	18	0	18	2	0	2	20	0	20
Total (b)	**2**	**36**	**0**	**36**	**4**	**0**	**4**	**40**	**0**	**40**
GT (a-b)	**3**	**55**	**0**	**55**	**7**	**0**	**7**	**62**	**0**	**62**
III Soil Health and Fertility Management										
Soil fertility management	1	18	0	18	2	0	2	20	0	20
Total	**1**	**18**	**0**	**18**	**2**	**0**	**2**	**20**	**0**	**20**
V Home Science/Women empowerment										
Processing and cooking	2	0	40	40	0	0	0	0	40	40
Value addition	1	0	20	20	0	0	0	0	20	20
Women and child care	1	0	20	20	0	0	0	0	20	20
Total	**4**	**0**	**80**	**80**	**0**	**0**	**0**	**0**	**80**	**80**
IX Production of Inputs at site										
Seed Production	2	34	0	34	6	0	6	40	0	40
Total	**2**	**34**	**0**	**34**	**6**	**0**	**6**	**40**	**0**	**40**
GRAND TOTAL	**14**	**176**	**80**	**256**	**27**	**0**	**27**	**203**	**80**	**283**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	2	34	0	34	6	0	6	40	0	40
Resource Conservation Technologies	1	17	0	17	3	0	3	20	0	20
Cropping Systems	4	68	0	68	12	0	12	80	0	80
Crop Diversification	2	33	0	33	7	0	7	40	0	40
Micro Irrigation/irrigation	1	17	0	17	3	0	3	20	0	20
Production of organic inputs	1	17	0	17	3	0	3	20	0	20
Total	**11**	**186**	**0**	**186**	**34**	**0**	**34**	**220**	**0**	**220**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	2	37	0	37	7	0	7	44	0	44
Nursery raising	1	18	0	18	3	0	3	21	0	21
Total (a)	**3**	**55**	**0**	**55**	**10**	**0**	**10**	**65**	**0**	**65**
b) Fruits										
Cultivation of Fruit	1	17	0	17	3	0	3	20	0	20
Rejuvenation of old orchards	1	18	0	18	3	0	3	21	0	21
Plant propagation techniques	1	18	0	18	2	0	2	20	0	20
Total (b)	**3**	**53**	**0**	**53**	**8**	**0**	**8**	**61**	**0**	**61**
c) Ornamental Plants										
Nursery Management	1	17	0	17	2	0	2	19	0	19
Total (c)	**1**	**17**	**0**	**17**	**2**	**0**	**2**	**19**	**0**	**19**
GT (a-g)	**7**	**125**	**0**	**125**	**20**	**0**	**20**	**145**	**0**	**145**
III Soil Health and Fertility										

Management										
Soil fertility management	3	54	0	54	4	0	4	58	0	58
Integrated water management	1	17	0	17	3	0	3	20	0	20
Integrated Nutrient Management	3	54	0	54	6	0	6	60	0	60
Micro nutrient deficiency in crops	1	18	0	18	2	0	2	20	0	20
Nutrient Use Efficiency	1	17	0	17	3	0	3	20	0	20
Soil and Water Testing	1	18	0	18	2	0	2	20	0	20
Total	**10**	**178**	**0**	**178**	**20**	**0**	**20**	**198**	**0**	**198**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	0	54	54	0	6	6	0	60	60
Design and development of low/minimum cost diet	1	0	20	20	0	0	0	0	20	20
Processing and cooking	2	0	40	40	0	0	0	0	40	40
Gender mainstreaming through SHGs	1	0	20	20	0	0	0	0	20	20
Location specific drudgery reduction technologies	2	0	40	40	0	0	0	0	40	40
Women and child care	3	0	54	54	0	6	6	0	60	60
Total	**12**	**0**	**228**	**228**	**0**	**12**	**12**	**0**	**240**	**240**
IX Production of Inputs at site										
Seed Production	8	145	0	145	15	0	15	160	0	160
Total	**8**	**145**	**0**	**145**	**15**	**0**	**15**	**160**	**0**	**160**
GRAND TOTAL	**48**	**634**	**228**	**862**	**89**	**12**	**101**	**723**	**240**	**963**

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
I Crop Production										
Weed Management	4	69	0	69	12	0	12	81	0	81
Resource Conservation Technologies	2	34	0	34	6	0	6	40	0	40
Cropping Systems	4	68	0	68	12	0	12	80	0	80
Integrated Farming	1	17	0	17	3	0	3	20	0	20
Crop Diversification	2	33	0	33	7	0	7	40	0	40
Micro Irrigation/irrigation	1	17	0	17	3	0	3	20	0	20
Production of organic inputs	1	17	0	17	3	0	3	20	0	20
Total	**15**	**255**	**0**	**255**	**46**	**0**	**46**	**301**	**0**	**301**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	3	56	0	56	10	0	10	66	0	66
Nursery raising	1	18	0	18	3	0	3	21	0	21
Total (a)	**4**	**74**	**0**	**74**	**13**	**0**	**13**	**87**	**0**	**87**
b) Fruits										
Cultivation of Fruit	1	17	0	17	3	0	3	20	0	20
Rejuvenation of old orchards	1	18	0	18	3	0	3	21	0	21
Plant propagation techniques	1	18	0	18	2	0	2	20	0	20
Management of young plants/orchards	1	18	0	18	2	0	2	20	0	20
Export potential fruits	1	18	0	18	2	0	2	20	0	20
Total (b)	**5**	**89**	**0**	**89**	**12**	**0**	**12**	**101**	**0**	**101**
c) Ornamental Plants										
Nursery Management	1	17	0	17	2	0	2	19	0	19
Total (c)	**1**	**17**	**0**	**17**	**2**	**0**	**2**	**19**	**0**	**19**
GT (a-g)	**10**	**180**	**0**	**180**	**27**	**0**	**27**	**207**	**0**	**207**
III Soil Health and Fertility Management										
Soil fertility management	4	72	0	72	6	0	6	78	0	78
Integrated water management	1	17	0	17	3	0	3	20	0	20
Integrated Nutrient Management	3	54	0	54	6	0	6	60	0	60
Micro nutrient deficiency in crops	1	18	0	18	2	0	2	20	0	20
Nutrient Use Efficiency	1	17	0	17	3	0	3	20	0	20
Soil and Water Testing	1	18	0	18	2	0	2	20	0	20
Total	**11**	**196**	**0**	**196**	**22**	**0**	**22**	**218**	**0**	**218**

V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	0	54	54	0	6	6	0	60	60
Design and development of low/minimum cost diet	1	0	20	20	0	0	0	0	20	20
Processing and cooking	4	0	80	80	0	0	0	0	80	80
Gender mainstreaming through SHGs	1	0	20	20	0	0	0	0	20	20
Location specific drudgery reduction technologies	2	0	40	40	0	0	0	0	40	40
Value addition	1	0	20	20	0	0	0	0	20	20
Women and child care	4	0	74	74	0	12	12	0	80	80
Total	**16**	**0**	**308**	**308**	**0**	**18**	**18**	**0**	**320**	**320**
IX Production of Inputs at site										
Seed Production	10	179	0	179	21	0	21	200	0	200
Total	**10**	**179**	**0**	**179**	**21**	**0**	**21**	**200**	**0**	**200**
GRAND TOTAL	**62**	**810**	**308**	**1118**	**116**	**18**	**134**	**926**	**320**	**1246**

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Value addition	1	0	10	10	0	0	0	0	10	10
TOTAL	**1**	**0**	**10**	**10**	**0**	**0**	**0**	**0**	**10**	**10**

Training for Rural Youths including sponsored training programmes (Off campus): Nil

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Value addition	1	0	10	10	0	0	0	0	10	10
TOTAL	**1**	**0**	**10**	**10**	**0**	**0**	**0**	**0**	**10**	**10**

Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	2	26	0	26	4	0	4	30	0	30
Protected cultivation technology	1	14	0	14	1	0	1	15	0	15
Production and use of organic inputs	1	13	0	13	2	0	2	15	0	15
Women and Child care	1	0	13	13	0	2	2	0	15	15
Low cost and nutrient efficient diet designing	1	0	12	12	0	3	3	0	15	15
TOTAL	**6**	**53**	**25**	**78**	**7**	**5**	**12**	**60**	**30**	**90**

Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Low cost and nutrient efficient diet designing	1	0	13	13	0	2	2	0	15	15
Household food security	1	0	12	12	0	3	3	0	15	15
Any other (Soil fertility and management)	3	40	0	40	5	0	5	45	0	45
TOTAL	**5**	**40**	**25**	**65**	**5**	**5**	**10**	**45**	**30**	**75**

Training programmes for Extension Personnel including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	2	26	0	26	4	0	4	30	0	30
Protected cultivation technology	1	14	0	14	1	0	1	15	0	15
Production and use of organic inputs	1	13	0	13	2	0	2	15	0	15
Women and Child care	1	0	13	13	0	2	2	0	15	15
Low cost and nutrient efficient diet designing	1	0	12	12	0	3	3	0	15	15
Low cost and nutrient efficient diet designing	1	0	13	13	0	2	2	0	15	15
Household food security	1	0	12	12	0	3	3	0	15	15
Any other (Soil fertility and management)	3	40	0	40	5	0	5	45	0	45
TOTAL	**11**	**93**	**50**	**143**	**12**	**10**	**22**	**105**	**60**	**165**

Table. Sponsored training programmes : Nil

Details of vocational training programmes carried out by KVKs for rural youth: Nil

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	18	935	0	935
Diagnostic visits	4	4	0	4
Field Day	1	22	0	22
Group discussions	8	1323	30	1353
Kisan Ghosthi	6	482	37	519
Self -help groups	5	100	0	100
Kisan Mela	4	1971	253	2224
Scientists' visit to farmers field	120	168	0	168
Farmer's visit to KVK	95	95	13	108
Celebration of important days	1	513	12	525
Special day celebration	3	380	0	380
Total	**265**	**5993**	**345**	**6338**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature (folder)	07
News paper coverage	21
Popular articles	07
Radio Talks	0
TV Talks	02
Animal health amps (Number of animals treated)	0
Total	**36**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only	328	05	22	0	15	0	370
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	328	05	22	0	15	0	**370**
	Total farmers Benefitted	**1700**	**518**	**792**	**0**	**350**	**0**	**3360**

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS : Nil

VI. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Wheat	HD-2967	-	396.76	763763.00	Supply to NSC, Meerut
Total				**396.76**	**763763.00**	

Production of crops by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Commercial crops						
	Jowar	Local variety	-	-	85000.00	Auction to farmers
	Paddy	Pusa Basmati-1718	-	36.8	161754.00	Auction to farmers

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings						
	Onion	Nasik red	-	2000	-	-
Medicinal and Aromatic						
	Sagoon	-	-	80	-	-
	Arjun	-	-	70	-	-
	Khair	-	-	10	-	-
Total		**-**	**-**	**2160**	**-**	**-**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers / Others				
	Vermicompost	10000	60000	KVK farm
Total		**10000**	**60000**	

Table: Production of livestock materials: Nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	935	935	28	74,860.00
Total	**935**	**935**	**28**	**74,860.00**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted	Date of SAC
KVK, Baghpat	01	31-01-2020

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
-	-

X. PUBLICATIONS

Category	Number
Books	
Technical reports	21
Others (Research abstract)	01

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM: Nil

XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC: Nil

XIII. DETAILS ON HRD ACTIVITIES: Nil

A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension : Nil

B. HRD activities organized in identified areas for KVK staff by Zonal Project Directorate : Nil

XIV. CASE STUDIES

Case study no.: 1
Name of the KVK: KVK, Baghpat

Nutri garden is becoming popular among farming community for combating malnutrition and stay healthy :
Situation analysis /problem statement : Smt. Pavitra w/o Shri Neeraj chaudhary, village katha, Block khekra, district- Baghpat is a women farmer who was selected for demonstration of nutrigarden and was provided mini seed kit as input. She was earlier growing some cucurbits like bottlegourd and smoothgaurds and was fetching only these vegetables ie only for 2-3 month for their consumption and rest of the vegetables, she use to purchase from local market or the intake of the vegetables of their family members were limited to these vegetables only.

Plan, implement and support : KVK Baghpat tried to make women farmer aware about the importance of fruits and vegetables in their diet .she was explained about the role of fruits and vegetables in their diet and in staying healthy. For the purpose nutria-garden is the sustainable alternative. She was encouraged for Growing nutri garden through out the year i.e rabi, zaid and kharif season and was provided mini seed kit procured from IARI, New Delhi containing latest variety of seed. So that they can have variety of seasonal fruits and vegetables and have micronutrients as per RDA (recommended dietary allowance) and stay healthy and can also save money indirectly which otherwise could have been on purchase fruits and vegetables.

OUTPUT: Smt. Pavitra adopted the practice of growing nutri garden throughout the year as per suggestion of KVK Scientist in 100 square meter of land. Growing seasonal fruits and vegetables during Rabi, Kharif, and Zaid provided fresh vegetables almost for 319 days i.e almost throughout the year as compared to farmers practice i.e for 121 days. As far as production is concerned in recommended practice 302 kg vegetables were obtained in a year where as in local practice it was only 75 kg .the cost of expenditure in recommended practice was 1625 Rs which was higher than cost of local practice i.e Rs 770. But interesting phenomena is that CB: ratio is again noticeable and almost higher in recommendation practice than local practice .It is 1:5.57 in recommended practice. Whereas 1: 2.9 in local practice along with 302% increase in yield in recommended practice over local practice. Apart from that improvement in a general health and comparatively less incidence of diseases like common cold etc were reported with indirectly saving of Rs 9060 annually.

IMPACT : Smt. Pavitra is set forth example for others in district Baghpat. Total 170 families have been adopting recommended practice for nutri garden in 19 village of District Baghpat and combating with malnutrition and they could save indirectly Rs 9000 to 10000 per year by cultivating nutri garden.

Nutri-garden at village-Katha

Smt. Pavitra w/o Sh. Neeraj, Village-Katha

Case study no.: 2
Name of the KVK: KVK, Baghpat

Organic farming of wheat

Situation analysis/ Problem statements:- Mr. Vijay Singh, village Sunhera, district Baghpat a farmer who was selected for the demonstration. He was doing organic farming and earlier involved with local variety of Wheat. This variety was low in yield.

Plan, Implement and Support:- With the intraction of K.V.K. scientist he was motivated for soil testing to get the carbon content check and adviced for the use of green manuring along with earthworm manure, indigenous cow dung manure, fossil , ghanjeevamrit, belpatra ark , neem niboli arc, deciduous ark, sour buttermilk, waste decomposer and organic molasses sugar with improved variety of wheat ie. HD2967. K.V.K. scientist also advised him for line sowing.

Output:- Mr. Vijay Singh adopted all above practices by incorporating line sowing.

Outcome:- After adopting the recommended practices advised by K.V.K. scientist, yield was increase from 9.6 Q to 15.6 q in 0.25 ha of land.

Impact:- Mr. Vijay Singh is becoming one of the progressive and learned farmers for others with regards to popularization of HD2967. This technology helps him for livelihood, empowerment and make him enthusiastic regards wheat production. He is one of the progressive farmer after a becoming a part of KVK

activities and get their effectiveness for his own development. Mr. Vijay Singh is very happy with this improved production and management technology and set forth example for other farmers of the district. Mr. Vijay Singh is becoming one of the progressive and learned farmers for others with regards to popularization of organic farming. This technology helps him for livelihood, empowerment and make him enthusiastic regards organic farming. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development. Mr. Sanjay Singh is very happy with this improved production and management technology and set forth example for other farmers of the district.

XIV. AGRICULTURAL TECHNOLOGY INFORMATION CENTRE: Nil

XV. TECHNOLOGICAL BACKSTOPPING BY DIRECTORATES OF EXTENSION: Nil

XVI Achievement of Special programmes

1) **Achievement of skill development training funded by DAC&FW:** N.A.
2) **Achievements under Crop Residue Management (CRM) Project by KVKs:** N.A.
3) **Achievement of TSP (Tribal Sub Plan):** N.A.
4) **Achievement of KSHAMTA (Knowledge Systems And Home Based Agricultural Management in Tribal Areas):** N.A.
5) **Achievements of SCSP KVKs:** N.A.
6) **Achievement under IFS KVKs**

Sl. No.	IFS (Component Name)	No. of IFS established	Area (ha)	Number of Activities		No. of farmers benefited	
				Demo	Training	Demo	Training
1	Vermicompost, NADEP and Crop diversification	01	0.5	0	4	0	80

7) **Achievements under Mera Gaon Mera Gaurav (MGMG) project:** Nil
8) **Achievements of Farmers FIRST programme:** Nil
9) **Activities performed under NARI programme**

Activities	Number of activity	No. of farmers/ beneficiaries
OFTs - Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)	2	6
FLDs – Nutritional Garden (activity in no. of Unit)	15	15
FLDs – Value addition (activity in no. of Unit/Enterprise)	2	40
Trainings	4	80
Extension Activities	1	22
Grand Total	**24**	**163**

10) Achievements of Soil, water, plant and manure samples analyzed by KVKs and soil health cards issued

Sample	No. of Samples in lakh	No. of Farmers in lakh	No. of Villages in lakh	Amount realized (Rs. in lakhs)	No. of Soil Health Cards issued (lakhs)
Soil	935	935	28	74,860.00	935
Total	**935**	**935**	**28**	**74,860.00**	**935**

11) Achievements under NICRA Project

NRM		Crop production		Livestock & Fisheries			Capacity Building		Extension Activities	
Demo	Area (ha)	Demo	Area (ha)	Demo	Area (ha)	No. of animals	No of Courses	Farmers	No. of programmes	Farmers
01	20.0	02	28.0	-	-	-	09	180	04	90

12) Achievements under ARYA Project: Nil

13) Achievements under Rainwater Harvesting Structures: Nil

14) Achievements under Pulses Seed Hub programme

Season/Crop	Name of Pulse crop	Variety	Production			Category of seed
			Target (q)	Area sown (ha)	Actual Production (q)	(F/S, C/S)
Kharif	Green Gram	PM-5	-	10.0	9.25 q/ha	C/S
Total (Kharif)				**10.0**		
Rabi	Mustard	RH-749	-	20.0	Result awaited	C/S
Total (Rabi)				**20.0**		
Summer	Black gram	MASH-479	-	10.0	9.5 q/ha	C/S
	Green Gram	IPM 2-3	-	10.0	8.75 q/ha	C/S
Total (Summer)				**20.0**		
Grand Total				**50.0**		

15) NEMA (New Extension Methodologies and Approaches) : N.A.

16) Achievements under CSISA (Cereal System Initiative for South Asia) project : N.A.

17) Achievements under NIFTD (National Initiatives for fodder technology demonstrations) : N.A.

18) Achievements under Swachhata Abhiyan Mission

S.No.	Items	No. of Programmes	No. of persons participated
1	Garbage disposal	2	16
2	Door to door awareness	24	96
3	Awareness campaign	2	30
4	Other (Harvesting of kitchen water for nutrition garden)	2	30

19) Achievements under Aspirational District Scheme: Nil

XVI Awards: Nil

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