

वार्षिक प्रतिवेदन ANNUAL REPORT 2021



भाकृअनुप – कृषि प्रौद्योगिकी अनुप्रयोग
अनुसंधान संस्थान, कानपुर

ICAR-AGRICULTURAL TECHNOLOGY APPLICATION
RESEARCH INSTITUTE (ATARI) KANPUR

वार्षिक प्रतिवेदन
ANNUAL REPORT
2021



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EXECUTIVE SUMMARY

TRAINING PROGRAMMES

KVKs organized 7911 training courses with the participation of 179061 farmers, farm women, rural youths and extension functionaries. The farmers and farm women were represented in a proportion of 78.60 % and 21.40 % respectively. In all 139889 farmers and farm women and 18848 rural youths were provided skill training in different enterprises. Similarly, 20324 extension personnel were also trained in different areas.

A total of 864 sponsored trainings with the participation of 33963 farmers and farm women and 577 vocational trainings with participation of 13171 rural youths were organised.

FRONTLINE DEMONSTRATIONS

A total of 26838 frontline demonstrations were organized out of which on crops (20679), horticulture (747), farm implements (1094), livestock strains (1660) and other enterprises (1164). Total area and units covered was 8825.46 ha and 6041 units respectively.

TECHNOLOGY ASSESSMENT

Total 1032 technologies were assessed and 3941 trials conducted under three categories namely, crop (2776), livestock (763) and other enterprises (402).

EXTENSION PROGRAMMES

In all 50272 extension activities with 13.10 lakh beneficiaries, 37240 mass communication extension activities, 123468 mobile advisories through text and voice for 34.68 lakh farmers, 25951 soil samples covering 38649 farmers, 4439 technology week celebrations with 2.95 lakh beneficiaries, 13955 publications by KVKs and 34 by ATARI, 33 HRD activities by KVK and 5 by ATARI, 228 trainings and demonstrations under rain water harvesting & micro irrigation system with 20886 beneficiaries have been reported.

SEED PRODUCTION

Seed production is one of the important activity of KVKs. They undertake quality seed production which may play a greater role in enhancing production and productivity of different crops. During the year 2021, KVKs of Uttar Pradesh produced 25984.15 q seed of cereals (20439.55 q), pulses (2302.13 q), oilseeds (1693.47 q), vegetables (1291.51 q), fodder (186.74 q), spices (54.80 q) and commercial crops (15.95 q).

PLANTING MATERIAL PRODUCTION

The planting material/sapling production of vegetables, fruits, ornamentals, forestry, medicinal & fodder plants developed by KVKs. During this year KVKs produced 80.87 lakh planting materials including vegetable seedlings (54.11 lakh), paddy seedlings (16.15 lakh), fodder (4.25 lakh), fruit saplings (3.26 lakh), medicinal and aromatic (1.81 lakh), ornamental (0.81 lakh) and forestry (0.48 lakh).

BIO-PRODUCTS

The KVKs of Uttar Pradesh produced 3660.13 quintal of bio-products. It included vermi compost (1509.75 q) and NADEP compost (520.26 q). Besides, KVKs also produced 60.90 q bio pesticides, 30.45 q bio-fungicide and 82.10 q other bio- products.

LIVESTOCK & FINGERLING PRODUCTION

KVKs of Uttar Pradesh produced 212.50 lakh livestock strains including 4870 dairy animals including cows, buffaloes, calves, goat etc by 25 KVKs; poultry (15195) including broilers, layers, duals, ducks etc by 34 KVKs; piglets (430) and fisheries (212.33 lakh) by 32 KVKs respectively. The amount of Rs 81.42

lakh was collected from the produce.

HRD AND PUBLICATIONS

ICAR-ATARI, Kanpur organized 6 training programmes, 10 workshop/meetings/seminars and 11 participation in workshop/conferences and Kisan melas at ATARI level. Most of the programmes were organised by virtual mode. A total 28 publications have been developed by the ICAR-ATARI, Kanpur including research papers (12), book chapter (8), popular article (1), training manual (2), technical reports (1), news letters (4).

KVKs of different SAUs have also organised 26 programmes for 541 participants. Such programmes were organized at the University level to provide technological backstopping in frontier areas of the technologies. In all 13955 publications were developed by all KVKs of Uttar Pradesh. Publications includes 47 books, 137 training manual, 101 book chapter, 272 research papers, 157 seminar papers, 197 technical bulletins, 664 technical reports and 12380 other publications including newsletters, abstracts etc have been published during the period under report.

INFRASTRUCTURE FACILITIES

Most of KVKs are having their own infrastructure facilities, in Uttar Pradesh availability of infrastructure are Administrative Building (67), Farmers Hostel (59), Staff Quarters (59), Soil Testing Labs (44), Soil Testing Kits (104), IFS (26), Demo Units funded by ICAR (211), Demo Units funded by others (56), e-connectivity (26), Technology Information Unit (23) and Four wheeler (68), Two wheeler (59), Tractor (66).

STAFF POSITION

ICAR-ATARI, Kanpur have filled up 13 staff personnel out of total 20 vacancies. Post of RMP is vacant. Out of 6 sanctioned positions in scientific cadre, 5 positions (1 PS, 3 Sr. Scientist and 1 Scientist) are filled up. 1 RMP and 1 Scientist positions are lying vacant. Out of 9 positions in administrative cadre, 5 are filled up and 4 positions (AF&AO-1, LDC-1, PS-1, Steno-1) are lying vacant. 1 Skilled Support Staff is filled and 1 post is vacant. Filled positions are 65.00 % and vacant post lying as 35.00 %.

STATUS OF BUDGET

During the financial year 2020-21, an amount of Rs. 14294.00 lakh was utilized/released against the allotted budget of Rs.14296.49 lakh.

PROJECTS AND SPECIAL PROGRAMMES

This institute is handling different projects and special programmes namely, CFLDs (Pulses & Oilseeds), ASCI, CRM, TSP/KSHAMTA, SCSP, NARI, NICRA, ARYA, NEMA, Pulses Seed Hub, SBA, Aspirational Distt Scheme, Farmer FIRST, MGMG, DAMU and CSISA. These project/special programmes are being running under ICAR funded, Government of India funded and Institute funded projects.

कार्यकारी सारांश

प्रशिक्षण कार्यक्रम

कृषि विज्ञान केन्द्रों द्वारा 7911 प्रशिक्षण कार्यक्रमों का आयोजन कर 179061 कृषकों जिसमें ग्रामीण युवा ,महिला एवं पुरुष कृषकों की सहभागिता रही। सहभागियों में 78.60 % प्रतिशत कृषक तथा 21.40 % प्रतिशत कृषक महिलाओं की भागीदारी रही ,कुल 139889 कृषक तथा महिला कृषक 18848 तथा ग्रामीण युवाओं को विभिन्न कृषि व्यवसाय में क्षमता विकास में प्रशिक्षित किया साथ ही 20324 प्रसार कार्यकर्ताओं को विभिन्न क्षेत्रों में प्रशिक्षण दिया गया।

प्रथम पंक्ति प्रदर्शन

कुल 26838 प्रथम पंक्ति प्रदर्शनों का आयोजन किया गया जिसमें 20679 फसल विज्ञान, 747 उद्यान, 1660, पशुधन एवं 1094 प्रक्षेत्र मशीनीकरण/यंत्र एवं 1164 प्रदर्शन अन्य विषयों के अन्तर्गत आयोजित किये गये।

तकनीकी परीक्षण

इस प्रखण्ड में 3941 कृषकों के यहाँ 1032 तकनीकी का परीक्षण किया गया। कृषि विज्ञान केन्द्रों ने 13 समस्याओं पर आधारित प्रक्षेत्र परीक्षण 794 फसलों से सम्बन्धित तकनीकी परीक्षण 2776 कृषकों के खेतों पर किये गये जिसमें खाद्यान्न , दलहनी ,तिलहनी ,सब्जी ,फल एवं नकदी फसलें विशेष रूप से थीं। 166 तकनीकी पशुपालन सम्बन्धी समस्याओं पर परीक्षण किये गये जिसमें 763 लाभार्थी चुने गये। 72 तकनीकी जो व्यवसाय से सम्बन्धित थीं 402 कृषकों के यहाँ तकनीकी का परीक्षण किया गया।

प्रसार कार्यक्रम

उत्तर प्रदेश के विभिन्न कृषि विज्ञान केन्द्रों के द्वारा बड़ी संख्या में प्रसार कार्यक्रमों का आयोजन किया गया जिनकी संख्या 50272 है। इन कार्यक्रमों में 13.10 लाख कृषक लाभार्थी तथा 42946 प्रसार कार्यकर्ताओं को प्रशिक्षित किया गया। कुल 37240 संचार सेवा में कार्यक्रम आयोजित हुए जिसमें रेडियोवार्ता ,फिल्म प्रदर्शन ,न्यूजपेपर कवरेज आदि गतिविधियाँ प्रमुख हैं।

मोबाइल के माध्यम से परामर्शी सेवा में 123468 मूल संदेश तथा वायस सन्देश भेजे गये जिससे 34.68 लाख कृषक लाभान्वित हुए। इस प्रकार की सेवा से दूर-दराज के किसानों तक लाभ पहुँचाया गया। कृषि विज्ञान केन्द्रों द्वारा 25951 मृदा के नमूनों का परीक्षण कर 38649 किसानों को लाभ पहुँचाया गया, 4439 गतिविधियाँ तकनीकी सप्ताह के अन्तर्गत आयोजित कर 2.95 लाख कृषकों को लाभान्वित किया गया।

बीज उत्पादन

कृषि विज्ञान केन्द्रों का बीज उत्पादन एक प्रमुख कार्यक्रम है। विभिन्न फसलों के उत्पादन एवं उत्पादन क्षमता बढ़ाने में अच्छे बीजों की महत्वपूर्ण भूमिका है। वर्ष 2021 में उत्तर प्रदेश के कृषि विज्ञान केन्द्रों द्वारा 25984.15 कुन्तल बीज उत्पादित किया जिसमें खाद्यान्न (20439.55 कुन्तल) ,तिलहनी फसलों का (1693.47 कुन्तल,) दलहन का (2302.13 कुन्तल), सब्जियों का (1291.51 कुन्तल), व्यवसायिक फसलों का (15.95 कुन्तल), मसाले का (54.80 कुन्तल), तथा चारा वाली फसलों का (186.74 कुन्तल) ,उत्पादित किया गया।

प्लांटिंग मैटेरियल उत्पादन

सब्जी पौध ,फल पौध ,साज-सज्जा ,वन प्रजाति ,औषधी एवं अन्य पौध तैयार की गई। वर्ष 2021 में 80.87 लाख की संख्या में प्लांटिंग मैटेरियल तैयार हुआ जिसमें सब्जी पौध 54.11 लाख, फल पौध 3.26 लाख साज सज्जा 0.81 लाख, वन प्रजाति 0.48 लाख, सगन्ध एवं औषधीय 1.81 लाख, एवं चारा की 4.25 लाख पौध विकसित की गई।

जैव उत्पाद

कृषि विज्ञान केन्द्रों द्वारा 3660.13 कुन्तल जैव उत्पाद हुआ जिसमें वेर्मी कम्पोस्ट (1509.75 कुन्तल), नाडेप कम्पोस्ट (520.26 कुन्तल). इसके अलावा जैव कीटनाशक (60.90 कुन्तल), जैव कवकनाशी (30.45) और अन्य जैव उत्पाद (82.10 कुन्तल) का उत्पादन हुआ।

पशुधन और फिंगरलिंग उत्पादन

कृषि विज्ञान केन्द्रों द्वारा 212.53 लाख जैविक उत्पाद जिसमें दुधारू पशु बकरी, सुअर एवं मत्स्य बीज तैयार किये गये।

मानव संसाधन विकास कार्यक्रम एवं प्रकाशन

अटारी कानपुर द्वारा 6 प्रशिक्षण कार्यक्रम, 10 कार्यशाला एवं सेमीनार्स का आयोजन किया गया, कुल 11 कार्यशाला एवं किसान मेलों में प्रतिभागिता की गयी। साथ ही अटारी द्वारा कुल 28 प्रकाशन किया गया जिसमें शोधपत्र (12), पुस्तक चैप्टर (8), पॉपुलर आर्टिकल (1), ट्रेनिंग मैनुअल (2), तकनीकी प्रतिवेदन (1) तथा समाचार पत्र (4) प्रकाशित किये गये।

इसी तरह विभिन्न कृषि विश्वविद्यालय के कृषि विज्ञान केन्द्रों द्वारा 26 कार्यक्रम आयोजित कर 541 वैज्ञानिकों को विश्वविद्यालय स्तर पर प्रशिक्षण देकर ज्ञानवर्धन आधुनिक नवीन तकनीक से अवगत कराया गया। वर्ष 2021 में विभिन्न कृषि विज्ञान केन्द्रों द्वारा 13955 प्रकाशन किया गया जिसमें पुस्तक 47, ट्रेनिंग मैनुअल (137), बुक चैप्टर (101), शोधपत्र (272), सेमिनार पेपर्स (157), टेक्निकल बुलेटिन्स (197), तकनीकी रिपोर्ट्स (664) एवं 12380 अन्य प्रकाशन किये गए।

इंफ्रास्ट्रक्चर की स्थिति

उत्तर प्रदेश के अधिकांश कृषि विज्ञान केन्द्रों के पास अवस्थापना सुविधाएँ उपलब्ध है। इन सुविधाओं में प्रशासनिक भवन 67, कृषक छात्रावास 59 के.वी.के., स्टाफ आवास 59 के.वी.के., मृदा परिक्षण प्रयोगशाला 44 के.वी.के., प्रदर्शन इकाई 211 जीप 68, मोटर साइकिल 70, ट्रैक्टर 66, की संख्या में कृषि विज्ञान केन्द्रों के पास उपलब्ध है

स्टाफ की स्थिति

भाकृअनुप-अटारी, कानपुर में कुल 7 पद रिक्त है जिसमें, आरएमपी-1 वैज्ञानिक-1, प्रशासनिक -4, सपोर्टिंग-1 तथा कृषि विज्ञान केन्द्रों में स्वीकृत पद 1424 में से 517 पद रिक्त है।

बजट की स्थिति

वित्तीय वर्ष 2020-21 में रुपये 14294.00 लाख की धनराशि अवमुक्त/उपभोग की गई जो कुल उपलब्ध बजट 14296.49 लाख के सापेक्ष उपयोग की गई।

विशेष कार्यक्रम

भाकृअनुप-अटारी, कानपुर द्वारा चार तरह की परियोजनाएं चलाई जा रहे हैं जैसे भाकृअनुप फंडेड प्रोजेक्ट्स, भारत सरकार द्वारा फंडेड प्रोजेक्ट्स, अन्तराष्ट्रीय फंडेड प्रोजेक्ट्स और संस्थान फंडेड प्रोजेक्ट्स शामिल है। सी एफ एल डी (आयल सीड-पल्सेस), निकरा, आर्या, नीमा, टीएसपी/क्षमता, सीआरएम, स्किल कौंसिल ऑफ इंडिया, दलहन बीज हब, अस्पिरेशनल डिस्ट्रिक्ट्स, नारी, एससीएसपी, स्वच्छ भारत अभियान, फार्मर्स फर्स्ट, एमजीएमजी, दामू जैसे परियोजनाएं चलाये जा रहे हैं।

Chapter-1

INTRODUCTION & ACHIEVEMENTS AT A GLANCE**1.1 INTRODUCTION**

The Indian Council of Agricultural Research (ICAR) is an autonomous organisation under the Department of Agricultural Research & Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India. Agricultural Extension Division is one of the Subject Matter Division where the major activities are of Assessment and Demonstration of Technology/Products through a network of 731 Krishi Vigyan Kendras (KVKs).

ICAR-Agricultural Technology Application Research Institute (ATARI), Kanpur is one of the 11 ICAR-ATARIs formerly known as Zonal Project Directorates (ZPDs) and the erstwhile Zonal Coordination Unit (ZCU) functioning under Division of Agricultural Extension established in the year 1979. ICAR has established a vast network of KVKs all over the country under the administrative control of various ICAR institutes, State Agricultural Universities (SAUs), State Department of Agriculture, Non-Governmental Organisations (NGOs) and other institutes for implementing the central governmental projects/schemes. In the Zone, 3 Agricultural Technology Information Centres (ATICs) are working for delivering the “Single Window” delivery system. Since, Zonal Project Directorate has been elevated as ICAR-Agricultural Technology Application Research Institute (ATARI).

The major functions of the ICAR-ATARI, Kanpur are:

- Planning, monitoring and reviewing of KVK activities in the zone; to identify, prioritize and implement various activities related to technology integration and dissemination
- Coordinating with SAUs, ICAR institutes/organizations, line departments and voluntary organizations in the zone for implementation of KVK mandated activities and
- Facilitating financial and infrastructural support to KVKs for effective functioning.

KVK and its mandate

In Zone-III, 89 KVKs have been established by the ICAR in Uttar Pradesh across 75 districts.

The mandate of KVK is – Technology Assessment and Demonstration for its Application and Capacity Development (TADA-CD).

Besides, KVKs also act to

- Provide farm advisories using ICT and other media means on varied subjects of interest to farmers.
- Produce quality technological products (seed, planting material, bio-agents, livestock) and make it available to farmers, organize frontline extension activities, identify and document selected farm innovations and converge with ongoing schemes and programmes within the mandate of KVK.

Projects and Special programmes

This institute is handling 13 different projects and special programmes. These project/special programmes are being funded by ICAR, Government of India funded and Institute funded projects. A brief details and its KVKs/Institutes are given in Table 1.2.

1.2 KVKs AT A GLANCE

Table 1.2: KVKs in Uttar Pradesh at a Glance

No. of Districts in U.P.	No. of KVKs under				Total KVKs
	SAU	ICAR	NGO	Other (Educational)	
75	67	7	12	3	89

Table 1.3: Host institution wise KVKs with their establishment year

S.N.	Name of the KVK	Year of establishment	S.No.	Name of the KVK	Year of establishment
NDUA&T, Faizabad (25)					
1	Bahraich	1983	14	Chandauli	2005
2	Ballia	1989	15	Jaunpur-I	2005
3	Basti	1984	16	SantKabir Nagar	2009
4	Mau	1989	17	Ambedkar Nagar	2010
5	Varanasi	1989	18	Amethi	2018
6	Siddharthnagar	1992	19	Bahraich-II	2018
7	Faizabad	2004	20	Gonda-II	2018
8	Gorakhpur	2004	21	Sultanpur-II	2018
9	Maharajganj	2004	22	Jaunpur-II	2018
10	Sonbhadra	2004	23	Ghazipur-II	2018
11	Azamgarh-I	2004	24	Shravasti	2020
12	Barabanki	2004	25	Azamgarh-II	2021
13	Balrampur	2005			
CSAUA&T, Kanpur (15)					
26	Raebareli	1984	33	Firozabad	2004
27	Fatehpur	1989	34	LakhimpurKheri	2005
28	Aligarh	1992	35	Farrukhabad	2005
29	Kannauj	2004	36	Hardoi-I	2005
30	Etawah	2004	37	Mahamaya Nagar	2009
31	Mainpuri	2004	38	Kasganj	2018
32	Kanpur Dehat	2004	39	Auraiya	2007
			40	Raebareli-II	2021
BUAT, Banda (7)					
41	Jhansi	1984	45	Lalitpur	2005
42	Mahoba	2004	46	Banda	2007
43	Hamirpur	2005	47	Prayagraj-II	2021
44	Jalaun	2005			
SVPUA&T, Meerut (20)					
48	Bijnor	1992	58	Moradabad-I	2005
49	Rampur	1992	59	Gautam Budha Nagar	2005
50	Badaun-I	1992	60	Bulandshahar	2004
51	Saharanpur	1992	61	Badaun-II	2018
52	Ghaziabad	1992	62	Sambhal	2018
53	Sahajahanpur	1994	63	Shamli	2018
54	Meerut	1994	64	Amroha	2018
55	Muzaffarnagar-I	1994	65	Hapur	2018
56	Pilibhit	1998	66	Muzaffarnagar-II	2019
57	Baghpat	2004	67	Moradabad-II	2020

	ICAR KVKs (7)				
	Indian Veterinary Research Institute, Bareilly				
68	Bareilly	1985			
	Indian Institute of Sugarcane Research, Lucknow				
69	Lucknow	1994	70	Lakhimpur Kheri-II	2019
	Indian Institute of Vegetables Research, Varanasi				
71	Kushinagar	2005	73	St. Ravidas Nagar	2008
72	Deoria	2009			
	ICAR-Central Soil Salinity Research Institute, Karnal				
74	Hardoi-II	2018			
	NGO KVKs (12)				
	Kamla Nehru Memorial Trust, Sultanpur				
75	Sultanpur	1976			
	RBS College, Agra				
76	Etah	1992	77	Agra	2002
	Deendayal Research Institute, Gonda				
78	Gonda-I	1989	79	Chitrakoot	1992
	Raja Avadesh Singh Memorial Society, Pratapgarh				
80	Pratapgarh	1999			
	Kunwar Ram Bux Singh Educational Society, Lucknow				
81	Unnao	1999			
	Post Graduate College, Gazipur				
82	Gazipur	2002			
	Manav Vikas Evam Seva Sansthan, Lucknow				
83	Sitapur-I	2005			
	Dr.Bhimrao Ambedkar Welfare Society, Allahabad				
84	Kaushambi	2006			
	RanvirRananjay Degree College Association, Sultanpur				
85	Sitapur-II	2011			
	Guru Gorakshnath Sewa Sansthan				
86	Gorakhpur-II	2016			
	Educational KVKs (3)				
	U.P. Pt. Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwa Vidyalaya Evam Go Anusandhan Sansthan, Mathura				
87	Mathura	1984			
	SHUATS, Allahabad				
88	Allahabad	1992			
	BHU, Varanasi				
89	Mirzapur	1984			

1.3 AGRO-CLIMATIC ZONES

Uttar Pradesh is divided into 9 agro climatic zones (Bhabhar and Tarai, Western Plain, Mid Western Plain, South Western Semi Arid, Central Plain, Bundelkhand, North Eastern Plain, Eastern Plain and Vindhyan Zone), depicted as in figure 1.



Distribution of 88 KVKs in U.P.		
	SAU KVKs	67
	ICAR KVKs	07
	NGO KVKs	12
	Educational KVKs	03
	Total	89

Note: Districts with two KVKs : Azamgarh, Gonda, Bahraich, Sultanpur, Jaunpur, Ghazipur, Budaun, Moradabad, Muzaffarnagar, Lakhimpur Kheri, Hardoi, Sitapur, Gorakhpur, Prayagraj

1.4 ACHIEVEMENTS AT A GLANCE DURING 2021

1.4.1 Achievements of Technical Programmes at a glance

1.	Training programmes	Courses	Participants
	• Farmers & farm women	6047	139889
	• Rural Youths	954	18848
	• Extension Functionaries	910	20324
	Total	7911	179061
	• Sponsored Training programmes	864	33963
	• Vocational Training programmes	577	13171
2.	Frontline Demonstrations	Farmers	Area (ha)/Units (No.)
	• Pulses	7462	2758.32
	• Oilseeds	9077	3241.83
	• Cereals	2562	1025.68
	• Fodder	872	94.85
	• Hybrids	315	123.47
	• Commercial	237	95.14
	• Spices	65	25.00
	• Millets	89	35.22
	• Vegetables	664	249.64
	• Fruits	83	33.23
	• Livestock	1660	5887 units
	• Farm Implements	1094	582.08 ha
	• Other Enterprises	1164	154 units/561 ha
	Grand Total	26838	8825.46/6041 units
3.	Technology Assessment	Technologies	Trials
	• Crops	794	2776
	• Livestock	166	763
	• Other Enterprises	72	402
	Total	1032	3941
4.	Extension Programmes	Number	Beneficiaries
	• Extension activities	50272	1307070
	• Other extension programmes (mass comm.)	37240	mass
	• Mobile advisories	123468	3467967
	• Soil samples	25951	38649
	• SACs	81	1590
	• Technology week celebration	4439	295035
	• RWHS & MIS	228	20886
	• Technology backstopping by DE	313	2025
	• ATIC	7133	32748
5.	Seed Production (quintal)	25984.15	38833
6.	Planting materials (lakh)	80.88	60765
7.	Bio-Production (quintal)	3660.13	6799
8.	Livestock strains	Quantity (lakh)	Beneficiaries
	• Livestock	0.20	1508
	• Fisheries	212.30	1532
	Total	212.50	3040
9.	Publications (No.)	By KVKs	By ATARI
		13955	28
10.	HRD/meetings Programmes	By KVK	By ATARI
	• No. of Programmes/Participants	26/541	6/154

1.4.2 Achievements of Projects and Special Programmes at a glance

S.No.	Programme Name & no. of KVKs implementing	Achievements
1.	NICRA (National Innovation on Climate Resilient Agriculture) (13 KVKs)	- Demonstrations on various modules: 2845 covering 1357.32 ha area. - Training courses: 85 and 2000 farmers benefitted - Extension activities: 78 and 2295 farmers benefitted
2.	ARYA (Attracting & Retaining of Youth in Agriculture) (10 KVKs)	- Training programmes: 31 courses with 555 participants - Entrepreneurial Units established: 374
3.	TSP (Tribal Sub Plan)/ KSHAMTA (Knowledge Systems and Home Based Agricultural Management in Tribal Areas) (8 KVKs)	- Training programmes: 63 courses with 1792 participants - OFT: 52, FLD : 3570 - Mobile agro – advisories provided: 1.55 lakh - Participation in extension activities: 847 - Seed Production: 800 q, fingerlings: 0.01 lakh - Soil Testing: 197
4.	KSHAMTA	- Villages covered: 14, FLDs: 47 - Training programmes: 75 courses with 5822 participants
5.	CRM (Crop Residue Management) (23 KVKs)	- Awareness camp: 169 & 15952 farmers benefitted - Training programmes: 108 with 2472 participants - Demonstrations: 4411 covering 1525.60 ha - Kisan melas: 86 with 16787 farmers benefitted - Other activities (posters, banners, paintings etc): 9658
6.	ASCI (Agriculture Skill Council of India) (36 KVKs and 6 ICAR Institute)	Training courses organised: 30 courses with 793 participants (each course has 200 hour duration)
7.	Pulses Seed Hub (8 KVKs)	Total pulses seed production: 2288.54 q
8.	Aspirational District Scheme (8 KVKs)	- Trainings programmes: 49 courses with 1245 participants - Total 198 q seed and 69530 planting material distributed to 1035 farmers
9.	NARI programme (Nutrition-sensitive Agricultural Resources and Innovation) (All 89 KVKs)	- Trainings (courses: 224, Participants: 4714) - Extension programmes (Number 187, Participants: 8886) - Nutritional Garden units established: 1071 and 1160 farmer benefitted - Bio-fortified crops: 98 and 2233 farmers benefitted - Value addition: 135 and 1844 farmers were benefitted.
10.	SCSP (Schedule Caste Sub Plan) (10 KVKs)	- Training programmes: 1177 courses with 12808 participants - On farm Trials: 227, FLD : 6404 - Mobile agro – advisories provided: 19632 - Participation in extension activities: 35436 - Seed production: 1260.56 q, planting material: 1.67 lakh,

		Fingerlings production: 2.03 lakh • Soil Testing: 2639
11.	SBA (Swachha Bharat Abhiyaan) (All 89 KVKs)	• Programmes organised: 1070 with 25305 participants
12.	Farmers FIRST (Farm, Innovations, Resources, Science & Technology) (7 ICAR Institutes)	• Conducted 3165 demonstrations on 5200 animal & 4960 birds, 2600 fingerlings by covering 8335 farmers • 546 extension activities benefitting 4480 Farmers
13.	MGMG (Mera Gaon Mera Gaurav) (13 ICAR Institutes)	• Total groups made: 61 with 346 villages covered • Total 277 scientist involved in 295, field activities • Total 439 advisories sent covering 1490 farmers

1.5 LINKAGES AND COORDINATION

1. SAUs (SVPUAT, CSAUAT, NDUAT & BUAT) linked for technological backstopping to KVKs of Uttar Pradesh
2. Linkage with MANAGE Hyderabad for Agri-business & Agri Clinic Scheme & also knowledge up gradation of KVK staff in ICT.
3. Interface on KVK-ATMA linkage held at State level with Principal Secretary Agriculture & Director Agriculture for effective linkage.
4. IIVR, Varanasi for providing suitable technologies for vegetable production.
5. Linkage with CRIDA, Hyderabad for promoting climate resilient technologies in 13 districts of U.P.
6. Fodder development programme initiated in collaboration with IGFRI, Jhansi.
7. Linkage with National Rain fed Area Authority for development of Bundelkhand region.
8. Senior level interactions and meetings organized with line department officials for better convergence & linkage.

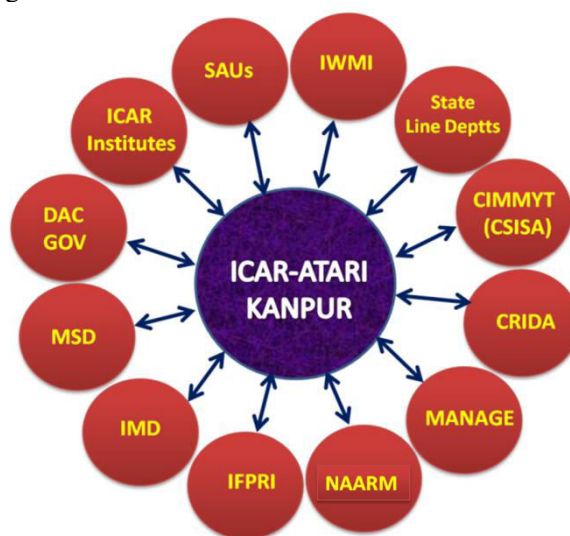


Fig-1 : Linkages of ICAR-ATARI, Kanpur with different organizations/Institutes

Chapter-2

TRAINING PROGRAMMES

KVKs organized 7911 training courses with the participation of 179061 farmers, farm women, rural youths and extension functionaries. The farmers and farm women were represented in a proportion of 78.60 % and 21.40 % respectively. In all 139889 farmers and farm women and 18848 rural youths were provided skill training in different enterprises. Similarly, 20324 extension personnel were also trained in different areas.

A total of 864 sponsored trainings with the participation of 33963 farmers and farm women and 577 vocational trainings with participation of 13171 rural youths were organised. Details of ON and OFF campus trainings of each clientele are given in Table-2.3.

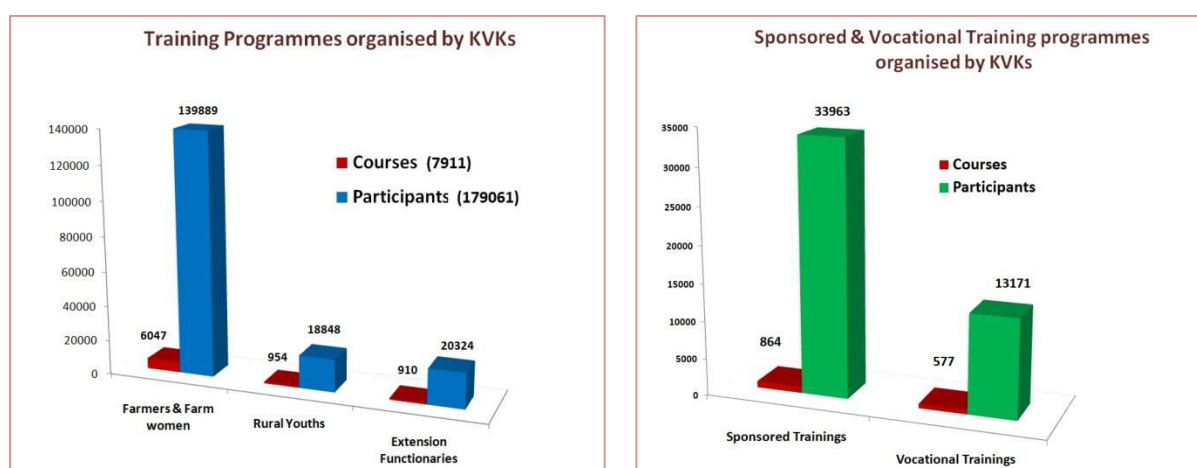


Table-2.1 Physical achievement of Training Programme at a glance

Clientele	Courses	Male	Female	Total
Farmers & Farm women	6047	109234	30655	139889
Rural Youths	954	14748	4100	18848
Extension Functionaries	910	16766	3558	20324
Total	7911	140748	38313	179061

Table-2.2: Sponsored and vocational trainings conducted at a glance

Type of training	Courses	Male	Female	Total
Sponsored Trainings	864	27678	6285	33963
Vocational Trainings	577	11083	2088	13171
Total	1441	38761	8373	47134

Table-2.3 Clientele wise ON/OFF Campus training programmes

Clientele	Type of Campus	No. of courses	Participants								
			Others			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
Farmers &	ON	2504	34303	8084	42387	11173	4399	15572	45476	12483	57959
Farm Women	OFF	3537	48436	11646	60082	15322	6526	21848	63758	18172	81930
	Total	6047	82739	19730	1E+05	26495	10925	37420	109234	30655	139889
Rural Youths	ON	691	7703	1855	9558	2463	1074	3537	10166	2929	13095
	OFF	269	3450	702	4152	1132	469	1601	4582	1171	5753
	Total	954	11153	2557	13710	3595	1543	5138	14748	4100	18848
Extension	ON	547	8483	1499	9982	2151	642	2793	10634	2141	12775
Functionaries	OFF	363	4840	1050	5890	1292	367	1659	6132	1417	7549
	Total	910	13323	2549	15872	3443	1009	4452	16766	3558	20324
Grand Total	ON	3742	50489	11438	61927	15787	6115	21902	66276	17553	83829
	OFF	4169	56726	13398	70124	17746	7362	25108	74472	20760	95232
	Total	7911	107215	24836	132051	33533	13477	47010	140748	38313	179061

2.1 FARMERS AND FARM WOMEN

Under trainings for farmers and farm women category, total of 6027 courses were conducted by KVKs of the Uttar Pradesh with the participation of 113635 farmers and farm women (Table 2.4). Maximum courses (1419) and participants (32529) were related to crop production. The other areas of trainings were horticulture (1132 courses and 26181 participants); livestock production management (751 courses and 17316 participants); women empowerment (684 courses and 16008 participants); soil health and fertility management (553 courses and 12656 participants); agricultural engineering (205 courses and 4842 participants); plant protection (670 courses and 15076 participants); fisheries (57 courses and 1299 participants); production of input at site (220 courses and 5335 participants); capacity building & group dynamics (320 courses and 7853 participants); agro forestry (36 courses and 794 participants).

Table-2.4 Training of farmers and farm women

Area of training	Courses	Male	Female	Total
Crop Production	1419	29237	3292	32529
Horticulture	1132	22693	3488	26181
Soil Health & Fertility Management	553	11093	1563	12656
Livestock Production & Management	751	14683	2633	17316
Home Science/ Women empowerment	684	1104	14904	16008
Agril. Engineering	205	4380	462	4842
Plant Protection	670	13358	1718	15076
Fisheries	57	1217	82	1299
Production of Input at site	220	4502	833	5335
Capacity Building & Group Dynamics	320	6304	1549	7853
Agro forestry	36	663	131	794
Total	6047	109234	30655	139889

2.1.1 Crop Production

With respect to crop production, 1419 training courses were organized in Uttar Pradesh with the participation of 32529 farmers and farm women. Integrated crop management related 223 courses were organized in which 5193 farmers and farm women participated; followed by 183 courses on seed production (4189 participants), 210 on weed management (4595 participants), 105 courses on Integrated nutrient Management (2630 participants). The other important areas like cropping systems, crop diversification, integrated farming, integrated nutrient management, nursery management, production of organic inputs, etc. were also taken up.

Table 2.5: Training programmes related to crop production

Area of training	Courses	Male	Female	Total
Weed Management	210	4112	483	4595
RCT	121	2486	351	2837
Cropping Systems	111	2271	213	2484
Crop Diversification	70	1445	175	1620
Integrated Farming	70	1455	203	1658
Micro irrigation/irrigation	37	780	72	852
Seed production	183	3710	479	4189
Nursery management	76	1518	177	1695
Integrated Crop Management	223	4736	457	5193
Soil & water conservation	49	976	91	1067
Integrated nutrient Management	105	2322	308	2630
Production of organic inputs	43	855	180	1035
Others	121	2571	103	2674
Total	1419	29237	3292	32529

2.1.2 Horticulture

Training on production technologies of vegetables, fruits, ornamental plants, plantation crops, tuber crops, spices and medicinal plants were organized. 592 courses on vegetables involving 13836 and 325 courses on fruit with the participation of 7536 were held. Similarly, in case of ornamental plants, organization of 58 courses with participation of 1328 persons was ensured. In the area of plantation crops, tuber crops, spices, medicinal & other crops 29, 49, 42 and 37 courses were organized with participation of 635, 1052, 934 and 850 farmers and farm women.

Table 2.6: Training on horticulture including sponsored training

Area of Training	Courses	Male	Female	Total
a) Vegetable Crops				
Production of low value & high volume crops	179	3786	635	4421
Off-season vegetables	82	1555	302	1857
Nursery raising	131	2520	361	2881
Exotic vegetables	16	297	71	368
Export potential vegetables	10	210	29	239
Grading and standardization	26	477	111	588
Protective cultivation	78	1664	311	1975
Others	70	1261	246	1507
Total (a)	592	11770	2066	13836

b) Fruits				
Training and Pruning	38	751	101	852
Layout and Management of Orchards	58	1148	222	1370
Cultivation of Fruit	64	1317	196	1513
Management of young plants/orchards	38	817	84	901
Rejuvenation of old orchards	45	917	135	1052
Export potential fruits	8	144	22	166
Micro irrigation systems of orchards	32	728	61	789
Plant propagation techniques	22	482	68	550
Others	20	312	31	343
Total (b)	325	6616	920	7536
c) Ornamental Plants				
Nursery Management	27	535	92	627
Management of potted plants	3	61	4	65
Export potential of ornamental plants	7	159	19	178
Propagation techniques of ornamental Plants	11	212	22	234
Others	10	220	4	224
Total (c)	58	1187	141	1328
d) Plantation crops				
Production and Management technology	22	431	24	455
Processing and value addition	4	100	20	120
Others	3	56	4	60
Total (d)	29	587	48	635
e) Tuber crops				
Production and Management technology	41	794	101	895
Processing and value addition	1	25	0	25
Others	7	126	16	142
Total (e)	49	945	117	1062
f) Spices				
Production and Management technology	33	667	89	756
Processing and value addition	4	76	21	97
Others	5	81	0	81
Total (f)	42	824	110	934
g) Medicinal and Aromatic Plants				
Nursery management	9	223	13	236
Production and management technology	18	355	39	394
Post harvest technology & value addition	5	81	29	110
Others	5	105	5	110
Total (g)	37	764	86	850
GT (a-g)	1132	22693	3488	26181

2.1.3 Soil Health and Fertility Management

Total of 553 courses were attended by 12656 participants. The courses in the area of soil fertility management (107), integrated nutrient management (128), soil & water testing (70), production & use of organic inputs (56), balanced use of fertilizer (63) and micro-nutrients deficiency in crops (45), nutrient use efficiency (30), etc. were organized with the objectives to create awareness, knowledge and skill among farmers to address various issues. These trainings involved 2364, 2957, 1642, 1319, 1317, 977 and 718 beneficiaries respectively were benefitted.

Table 2.7: Training on soil health and fertility management

Area of training	Courses	Male	Female	Total
Soil fertility management	107	2090	274	2364
Integrated water management	27	568	77	645
Integrated nutrient management	128	2662	295	2957
Production and use of organic inputs	56	1063	256	1319
Management of problematic soils	19	444	54	498
Micro nutrient deficiency in crops	45	905	72	977
Nutrient use efficiency	30	627	91	718
Balance use of fertilizer	63	1158	159	1317
Soil & water testing	70	1401	241	1642
others	8	175	44	219
Total	553	11093	1563	12656

2.1.4 Livestock Production Management

All together 751 courses were organized with the participation of 17316 participants. The courses related to disease management (183) were organized with the participation of 4170 cattle owners. Dairy management (187) was second preferred programme attended by 4325 participants. Feed and fodder management, animal nutrition, poultry, quality animal products, etc were other priority areas.

Table 2.8: Training on livestock production and management

Area of training	Courses	Male	Female	Total
Dairy Management	187	3645	680	4325
Poultry Management	60	1097	338	1435
Piggery Management	8	130	53	183
Rabbit Management	4	63	33	96
Animal Nutrition Management	106	2124	287	2411
Disease Management	183	3596	574	4170
Feed & fodder technology	129	2617	450	3067
Production of quality animal products	21	401	99	500
Others	53	1010	119	1129
Total	751	14683	2633	17316

2.1.5 Women Empowerment

A range of courses (684) related to women empowerment were organized with the participation of 16008 farm women. Value addition courses (97) were attended by highest number of farm women (2161), followed by courses on women and child care (91) attended by total of 2056 participants, household food security by kitchen gardening (126) attended by 3208 farm women, etc. The farm women also showed interest in courses like storage losses, women & child care, rural craft, developing high nutrient efficient diet, drudgery reduction, diet related courses, etc. were also conducted.

Table-2.9: Training on Home Science/Women Empowerment

Areas of training	Courses	Male	Female	Total
Household food security by kitchen gardening	126	502	2706	3208
Design & development of low/minimum cost diet	46	37	933	970
Development of high nutrient efficiency diet	48	40	1133	1173
Minimization of nutrient loss in processing	38	110	743	853
Processing & cooking	42	68	814	882
Gender mainstreaming through SHGs	21	15	477	492
Storage loss minimization techniques	41	114	887	1001
Value addition	97	55	2106	2161
Women empowerment	37	48	895	943
Location specific drudgery reduction technologies	42	19	850	869
Rural crafts	27	26	573	599
Women and child care	91	47	2009	2056
Others	28	23	778	801
Total	684	1104	14904	16008

2.1.6 Agricultural Engineering

Total of 205 courses in various aspects related to farm machinery, implements and its maintenance, post harvest and value addition were organized by KVKs, benefiting 4842 farmers and farm women. Maximum courses on repair & maintenance of farm machinery & implements (77) were organized benefiting 1934 persons. Newer areas like installation and maintenance of micro irrigation system, use of plastics, small tools, etc. were also taken up in training programmes.

Table-2.10: Training on agricultural engineering

Areas of training	Courses	Male	Female	Total
Farm machinery & its maintenance	39	826	53	879
Installation and maintenance of micro irrigation systems	15	346	22	368
Use of plastics in farming practices	13	240	46	286
Production of small tools & implements	4	66	15	81
Repair & maintenance of farm machinery & implements	77	1862	72	1934
Small scale processing & value addition	13	211	59	270
Post harvest technology	25	436	171	607
Others	19	393	24	417
Total	205	4380	462	4842

2.1.7 Plant Protection

Under Plant Protection total 670 courses were organized with the participation of 15076 persons. The highlights of these programmes and others each course were on IDM (194), IPM (317), bio control of pests and diseases (80), production of bio control agents & bio pesticides (43).

Table-2.11: Training on plant protection

Areas of training	Courses	Male	Female	Total
Integrated Pest Management	317	6263	784	7047
Integrated Disease Management	194	4003	475	4478
Bio-control of pests and diseases	80	1605	189	1794
Production of bio control agents & bio pesticides	43	861	154	1015
Others	36	626	116	742
Total	670	13358	1718	15076

2.1.8 Fish Production

The courses on integrated fish farming (22) and composite fish culture (19) were mainly organized with the participation of 543 and 406 persons respectively. Overall 57 courses attracted participation of 1299 persons.

Table-2.12: Training on fish production

Areas of training	Courses	Male	Female	Total
Integrated fish farming	22	499	44	543
Carp breeding and hatchery management	3	60	0	60
Carp fry and fingerling rearing	8	169	16	185
Composite fish culture	19	389	17	406
Portable plastic carp hatchery	2	38	2	40
Pen culture of fish and prawn	1	15	0	15
Others	2	47	3	50
Total	57	1217	82	1299

2.1.9 Production of inputs at site

Total 220 courses on this theme attracted participation of 5335 persons were organized. Seed production, vermi composting and organic manures attracted maximum participation.

Table-2.13: Training on production of input at the site

Areas of training	Courses	Male	Female	Total
Seed Production	63	1358	129	1487
Planting material production	19	373	76	449
Bio-agents production	4	92	17	109
Bio-pesticides production	9	174	40	214
Bio-fertilizer production	8	162	25	187
Vermi-compost production	29	612	98	710
Organic manures production	19	355	89	444
Production of Bee-colonies and wax sheets	6	143	17	160
Small tools and implements	1	25	7	32
Production of livestock feed and fodder	5	105	24	129
Mushroom Production	35	663	268	931
Apiculture	8	172	35	207
Others	14	268	8	276
Total	220	4502	833	5335

2.1.10 Capacity Building and Group Dynamics

320 courses were organized benefiting 7853 persons. The topics covered in the programmes included leadership development, group dynamics, SHGs, entrepreneurship development, WTO & IPR, etc.

Table-2.14: Training on capacity building and group dynamics

Areas of training	Courses	Male	Female	Total
Leadership development	59	1211	263	1474
Group dynamics	37	717	188	905
Formation and Management of SHGs	84	1506	526	2032
Mobilization of social capital	25	462	109	571
Entrepreneurial development of farmers/youths	78	1538	291	1829
WTO and IPR issues	11	218	56	274
Others	26	652	116	768
Total	320	6304	1549	7853

2.1.11 Agro-forestry

In this area, 36 courses were organized benefiting 794 farmers. The topics covered in the programmes included production technology, nursery management, integrated farming systems, etc.

Table 2.15: Training on agro-forestry

Areas of training	Courses	Male	Female	Total
Production technologies	13	241	30	271
Nursery management	9	181	34	215
Integrated Farming Systems	11	196	52	248
Others	3	45	15	60
Total	36	663	131	794

2.2 TRAINING OF RURAL YOUTHS

Total of 954 courses involving 18848 persons were conducted. The highest participation was attracted towards the programmes like seed production (121), nursery management of horticultural crops (54), vermi culture (42), mushroom production (138) and organic inputs production (43). Other courses viz protected cultivation, commercial fruit production, planting material production, bee keeping, value addition, rural crafts, dairying, poultry, etc were preferred by the youth. Similarly, livestock and fisheries, crop production and management and post harvest management related programmes were also organized.

Table-2.16 Training on Rural youths

Areas of training	Courses	Male	Female	Total
Nursery Management of Horticulture crops	54	991	184	1175
Training and pruning of orchards	27	372	75	447
Protected cultivation of vegetable crops	40	569	114	683
Commercial fruit production	16	371	38	409
Integrated farming	32	523	56	579
Seed production	121	2429	306	2735
Production of organic inputs	43	745	125	870
Planting material production	19	277	53	330
Vermi-culture	42	782	80	862
Mushroom Production	138	1830	426	2256
Bee-keeping	58	1230	126	1356
Repair and maintenance of farm machinery and implements	30	545	34	579
Value addition	59	273	859	1132
Small scale processing	11	15	151	166
Post Harvest Technology	13	126	153	279
Tailoring and Stitching	20	36	405	441
Rural Crafts	17	87	225	312
Production of quality animal products	4	75	8	83
Dairying	38	692	152	844
Sheep and goat rearing	36	644	159	803
Piggery	9	250	2	252
Rabbit farming	9	41	14	55
Poultry production	22	405	66	471
Ornamental fisheries	1	0	15	15
Composite fish culture	24	399	29	428
Pearl culture	1	9	4	13
Cold water fisheries	1	26	14	40
Fish harvest and processing technology	1	15	0	15
Other	68	991	227	1218
Total	954	14748	4100	18848

2.3 TRAINING OF EXTENSION PERSONNEL

Total of 910 courses involving 20324 extension personnel were organized in the by the KVKs of Uttar Pradesh. Major areas in which extension personnel were trained were productivity enhancement in field crops (100), integrated pest management (127), INM (81), production of organic inputs (45), livestock feed & fodder (45), women & child care (51) etc. Details are shown in Table 2.17.

Table-2.17 Training for extension personnel

Areas of training	Courses	Male	Female	Total
Productivity enhancement in field crops	100	2243	85	2328
Integrated Pest Management	127	2579	173	2752
Integrated Nutrient management	81	1822	54	1876
Rejuvenation of old orchards	44	839	53	892
Protected cultivation technology	36	793	54	847
Production and use of organic inputs	45	1055	53	1108
Care & maintenance of farm machinery & implements	36	746	115	861
Gender mainstreaming through SHGs	10	126	72	198
Formation and Management of SHGs	37	697	177	874
Women and Child care	51	204	1173	1377
Low cost and nutrient efficient diet designing	26	101	512	613
Group Dynamics and farmers organization	32	640	80	720
Information networking among farmers	10	227	25	252
Capacity building for ICT application	31	584	76	660
Management in farm animals	51	1000	78	1078
Livestock feed and fodder production	45	890	87	977
Household food security	43	491	595	1086
Other	105	1729	96	1825
Total	910	16766	3558	20324

2.4 SPONSORED TRAINING PROGRAMMES

Under sponsored training programmes, total 864 courses were organised by involving 33963 participants. Details are shown in Table 2.18.

Table-2.18: Sponsored Training Programmes organised

Areas of training	Courses	Male	Female	Total
Crop production, management & Value addition				
Increasing production & productivity of crops	85	4603	433	5036
Fruit Plants	71	3883	351	4234
Ornamental plants	12	306	38	344
Spices crops	23	827	91	4578
Soil health and fertility management	23	572	63	635
Production of Inputs at site	24	997	78	1075
Methods of protective cultivation	45	1841	182	1710
Others	72	2332	284	2616
Total	355	15361	1520	16881
Post harvest technology and value addition				
Processing and value addition	79	2735	389	3124
Others	8	198	47	245
Total	87	2933	436	3369
Farm machinery				
Farm machinery, tools and implements	26	737	83	820
Others	17	395	41	436
Total	43	1132	124	1256
Livestock and fisheries				
Livestock production and management	93	1991	344	2335
Animal Nutrition Management	4	204	15	219
Animal Disease Management	34	1066	390	2554
Fisheries Nutrition	3	105	50	155
Fishery Management	28	1169	205	1374
Others	11	220	120	1529
Total	173	4755	1124	5879
Home Science				
Household nutritional security	42	1919	425	2344
Economic empowerment of women	20	35	556	591
Drudgery reduction of women	14	82	300	2935
Others	3	0	111	111
Total	79	2036	1392	3428
Agricultural Extension				
Capacity Building and Group Dynamics	35	842	257	1099
Others	92	619	1432	2051
Total	127	1461	1689	3150
Grand Total	864	27678	6285	33963

2.5 VOCATIONAL TRAINING PROGRAMMES

Under vocational training programmes, total 577 courses were organised by involving 13171 participants. Details are shown in table 2.19.

Table-2.19 Vocational Training Programmes organised

Areas of training	Courses	Male	Female	Total
Crop production and management				
Commercial floriculture	47	989	112	1101
Commercial fruit production	10	200	45	245
Commercial vegetable production	49	889	172	1061
Integrated crop management	35	602	117	719
Organic farming	32	598	100	698
Others	20	417	50	467
Total	193	3695	596	4291
Post harvest technology and value addition				
Value addition	46	662	279	941
Others	11	194	92	286
Total	57	856	371	1227
Livestock and fisheries				
Dairy farming	17	395	55	450
Composite fish culture	7	193	13	206
Sheep and goat rearing	17	412	80	492
Piggery	5	127	5	132
Poultry farming	7	127	25	152
Others	7	189	8	197
Total	60	1443	186	1629
Income generation activities				
Vermicomposting	25	490	50	540
Production of bio-agents, bio-pesticides, bio-fertilizers etc.	8	162	30	192
Repair and maintenance of farm machinery and implements	13	419	32	451
Rural Crafts	14	250	9	259
Seed production	16	321	53	374
Sericulture	11	175	47	222
Mushroom cultivation	30	545	101	646
Nursery, grafting etc.	9	122	37	159
Tailoring, stitching, embroidery, dying etc.	36	703	107	810
Agril. para-workers, para-vet training	24	477	55	532
Others	16	251	124	375
Total	8	115	20	135
Agricultural Extension				
Capacity building and group dynamics	19	315	82	397
Others	19	315	82	397
Total	229	4345	747	5092
Grand Total	577	11083	2088	13171

TRAINING PROGRAMMES



Training for Rural youths on Bee Keeping:
KVK Fatehpur



Off campus training for farmers on
Groundnut – IPM : KVK Jalaun



Training for farmers on mushroom:
KVK Bhadohi



Training for rural girls on value addition:
KVK Baghat



Vocational training on goat farming: KVK
Ambedkar Nagar



Training for rural youths on Bee Keeping :
KVK-II Gorakhpur



Training programme for Extension functionaries
on Plant Protection : KVK Hamirpur



Training programme for rural women on DFI :
KVK Hathrus

TRAINING PROGRAMMES



Training for women Extension Functionaries on Horticulture: KVK Hamirpur



Sponsored training programme on goatery : KVK-II Sitapur



Skill Training for SHG: KVK Kaushambi



Skill Training on Animal Science: KVK Bhadohi



Skill Training on mushroom: KVK Mirzapur



Skill Training on mushroom: KVK Banda



Training on nursery raising technology: KVK Gorakhpur-II

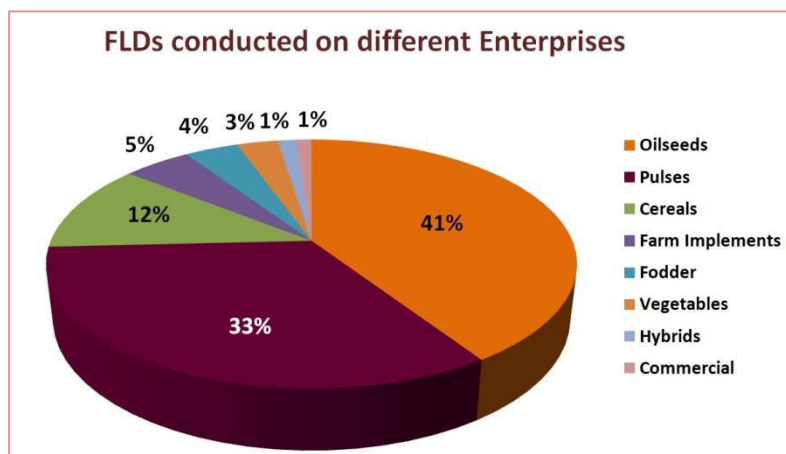


Training for farmers: KVK Prayagraj-II

Chapter-3

FRONTLINE DEMONSTRATIONS

Frontline demonstration (FLD) is one of the important activities of KVKs. It shows the production potential of improved technologies to the farmers. KVKs played important role to showcase and promote the latest varieties and other technologies related to cereals, oilseeds, pulses, vegetables, fruits, etc. to enhance the production and productivity. A total of 26838 frontline demonstrations were organized out of which on crops (20679), horticulture (747), farm implements (1094), livestock strains (1660) and other enterprises (1164). Total area and units covered was 8825.46 ha and 6041 units respectively. Details are given in Table-3.1.

**Table 3.1 : Physical achievement of frontline demonstrations**

S.No.	Enterprise	Demo	Area (ha)/units
1	Pulses	7462	2758.32
2	Oilseeds	9077	3241.83
3	Cereals	2562	1025.68
4	Fodder	872	94.85
5	Hybrids	315	123.47
6	Commercial	237	95.14
7	Spices	65	25.00
8	Millets	89	35.22
	Total (Crops)	20679	7399.51
9	Vegetables	664	249.64
10	Fruits	83	33.23
	Total (Hort)	747	282.87
11	Livestock	1660	5887 units
12	Farm Implements	1094	582.08 ha
13	Other Enterprises	1164	154 units/561 ha
	Total (others)	5412	1143.08/604
	Grand Total	26838	8825.46/6041

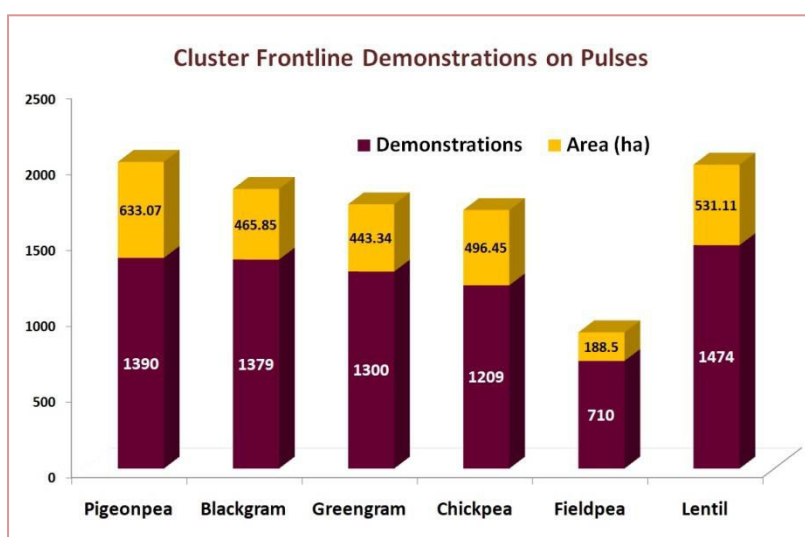
3.1 Cluster FLD on Pulses and Oilseeds

3.1.1 Cluster FLD on Pulses

Technology demonstrations on pulses were organized on an area of 2758.32 ha involving 7462 farmers. The crop wise and thematic area wise information of CFLD pulses is exhibited in Table-3.2.

Table 3.2: Thematic area wise physical achievement of CFLD on pulses

Name of crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Pigeonpea	29	Varietal	1113	390.07	16.64	12.34	41.52
	13	ICM	277	243	13.58	12.10	26.87
Total/Avg.	42		1390	633.07	15.11	12.22	34.20
Blackgram	21	Varietal	718	258.35	9.31	7.36	22.88
	16	ICM	647	203	9.96	7.58	27.76
	2	IPM	14	4.5	8.89	7.51	22.51
Total/Avg.	39		1379	465.85	9.39	7.48	24.38
Greengram	22	Varietal	932	307.84	10.01	7.74	28.44
	10	ICM	339	125.00	9.42	7.21	33.69
	2	IPM	10	3.00	9.23	7.82	22.84
	1	RCT	19	7.50	6.30	5.30	18.87
Total/Avg.	35		1300	443.34	8.74	7.02	25.96
Chickpea	24	Varietal	726	315.45	15.60	12.57	29.15
	12	ICM	401	145.00	17.19	13.10	29.83
	5	IPM	82	36.00	16.44	13.25	27.62
Total/Avg.	41		1209	496.45	16.41	12.97	28.87
Fieldpea	13	Varietal	595	148.50	19.18	14.66	29.84
	4	ICM	115	40.00	14.87	11.30	37.20
Total/Avg.	17		710	188.50	17.02	12.98	33.52
Lentil	30	Varietal	998	330.11	13.98	11.62	31.33
	14	ICM	408	181.00	11.99	9.15	32.52
	4	IDM	77	30.00	15.78	11.65	30.05
	1	INM	68	20.00	18.20	14.63	24.40
Total/Avg.	49		1474	531.11	14.72	11.80	29.42
Grand Total/Avg.	74		7462	2758.32	13.57	10.74	29.39



Pigeon pea: The 42 KVKs conducted 1390 demonstrations on pigeon pea by covering an area of 390.07 ha, exhibited yield realization of 15.11 q/ha which was 34.20 % higher than local check with net return of Rs. 41130/ha. Total 16 KVKs attained more than 14.00 q/ha of yield and 6 KVKs reported yield of more than 11.00 q/ha in all the

components. Performance of component demonstrations was considerably better under Varietal (16.64 q/ha) followed by ICM (13.58 q/ha).

Black gram: 39 KVKs laid out 1379 demonstrations on 465.85 ha area, exhibited yield levels of 9.39q/ha against 7.48ha in local checks which was 24.38 % higher. A net return of Rs. 36465.84/ha was realized in demonstrations which was about Rs. 26680.04 higher over local check. Performance of different component demonstrations was found satisfactory under ICM (9.96 q/ha) followed by under varietal (9.31 q/ha).

Green gram: Green gram related technologies were demonstrated by 35 KVKs with 1300 demonstrations on 443.34 ha area. This crop is mainly grown as summer crop with average yield of 8.64 q/ha in demonstrations against 7.02 q/ha in local check with 26.96 % increase. A net return of Rs. 37867.15/ha was obtained from demonstrations. In other component demonstration the highest yield was observed under Varietal (10.01 q/ha) followed by ICM (9.42 q/ha).

Chickpea: The 41 KVKs conducted 1209 demonstrations on chickpea by covering an area of 496.45 ha, exhibited yield of 16.41 q/ha against 12.97 q/ha of local check showing an increase of 28.87% higher than local check with net return of Rs. 56834.29/ha. 17 KVKs realized more than 16.00/ha. In other component demonstration the highest yield was observed under ICM (17.19 q/ha) followed by under IPM (16.44 q/ha).

Field pea: 17 KVKs conducted 710 demonstrations on an area of 188.50 ha. On an average 17.02 q/ha yield of field pea was recorded in demonstrations, which was 33.52 % higher over local check. Net return of Rs. 53086.08/ha was reported. Performance of different component demonstrations was found satisfactory under Varietal (19.18 q/ha) followed by ICM (14.87 q/ha).

Lentil: 49 districts laid out 1474 demonstrations by covering an area of 531.11 ha with lentil crop, exhibited 14.72 q/ha of productivity in demonstrations which was 29.42% higher than local check (11.80 q/ha). A net return of Rs. 44479.99. q/ha was realized in demonstrations. Performance of different component demonstrations was found satisfactory under INM (18.20 q/ha) followed by under IDM (15.78 q/ha).

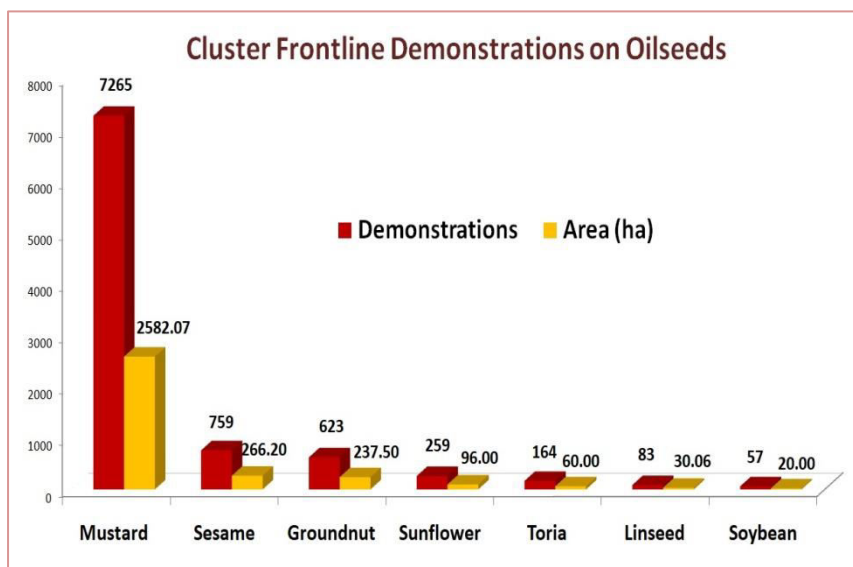
3.1.2 Cluster FLD on Oilseeds

Technology demonstrations on oilseeds were organized on an area of 3241.83 ha involving 9077 farmers. The crop wise and thematic area wise information of CFLD pulses is exhibited in Table-3.3.

Table 3.3: Thematic area wise physical achievement of CFLD on oilseeds

Name of crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Mustard	49	VE	4621	1666.32	18.37	14.58	48.03
	13	INM	607	181.75	19.16	14.77	40.05
	2	IPM	35	12.00	13.56	12.64	7.28
	30	ICM	2002	722.00	18.14	14.56	24.53
	89	Total	7265	2582.07	17.31	14.14	29.97
Sesame	14	VE	441	166.20	5.47	4.26	39.48
	6	ICM	233	70.00	5.24	3.65	40.85

	2	INM	35	10.00	7.30	5.40	35.19
	2	IPM	50	20.00	7.30	5.40	35.19
	24	Total	759	266.2	6.33	4.68	37.68
Groundnut	1	VE	166	63.50	16.26	13.06	23.85
	7	ICM	411	160.00	22.24	15.87	40.37
	1	INM	36	10.00	18.37	14.65	25.39
	1	IPM	10	4.00	15.00	12.80	17.18
	10	Total	623	237.50	17.97	14.09	26.70
Sunflower	6	ICM	143	60.00	17.20	11.80	45.76
	2	VE	25	6.00	13.28	9.50	39.65
	3	INM	91	30.00	17.80	14.20	25.35
	11	Total	259	96.00	16.09	11.83	36.92
Toria	2	VE	89	30.00	17.55	13.50	29.04
	1	ICM	75	30.00	8.80	6.80	29.40
	3	Total	164	60.00	11.30	8.42	29.04
Linseed	2	VE	83	30.06	11.6	8.8	31.82
	2	Total	83	30.06	11.6	8.8	31.82
Soybean	1	ICM	31	10.00	12.20	9.80	38.60
	1	INM	26	10.00	28.20	22.50	25.33
	2	Total	57	20.00	20.20	16.15	31.97
Grand Total/Avg	89	-	9077	3241.83	14.40	11.16	32.01



Mustard: The demonstrations on mustard were laid out at 7265 farmers' fields at 2582.07 ha area by 89 KVKs. On an average 17.31 q/ha of yield was recorded in demonstrations, which was 29.97% higher over local check (14.14 q/ha). A net return of Rs. **62349.81/ha** was realized in demonstrations. The highest yield of 22.50 q/ha was recorded under VE in

district Hamirpur followed by 20.00 q/ha in Jalaun district.

Sesamum: The demonstrations on sesame were laid out by 13 KVKs at 759 farmers' fields on 266.20 ha area. On an average 6.33 q/ha of yield was recorded in demonstrations, which was 37.68 higher over local check (4.68 q/ha). A net return of Rs. 32236.24 /ha was realized in demonstrations. The highest yield was obtained under VE component at Sultanpur-II(7.30 q/ha) followed by 6.90 q/ha in Hamirpur district.

Groundnut: A total of 623 demonstrations were organized on 237.50 ha area in groundnut crop (summer & kharif season) with productivity level of 24.68 q/ha which was 34.47 % higher over local practice. The net return of Rs. 71882.32 was realized in demonstrations while it was Rs. 47380.19 in local check. A total of four component demonstrations were conducted. The highest yield of 24.68

q/ha was obtained in Kharif groundnut under ICM component followed by 24.20 q/ha in ICM (HYV Seed@100kg/ha, Seed treat. Carbendazim@2.5g/kg seed).

Sunflower : Eleven KVKs conducted 259 demonstrations on sunflower by covering an area of 96.00 ha, exhibited yield of 16.09 q/ha against 11.86 q/ha of local check showing an increase of 36.92 % higher than local check with net return of Rs. 56561.71 /ha.

Toria: Three KVKs conducted demonstrations in an area of 60 ha area with involvement of 164 farmers. On an average 11.30 q/ha yield of Toria was recorded in demonstrations, which was 29.04 % higher over local check(8.42 q/ha). Net return of Rs. 29925/ha was reported.

Linseed : The Two KVKs conducted 83 demonstrations on linseed by covering an area of 30.06 ha, exhibited yield of 11.60 q/ha against 8.80 q/ha of local check showing an increase of 31.32 % higher than local check with net return of Rs. 29320 /ha.

Soybean : The Two KVKs conducted 57 demonstrations on linseed by covering an area of 20 ha, exhibited yield of 20.20 q/ha against 16.15 q/ha of local check showing an increase of 31.97 % higher than local check with net return of Rs. 56327.50 /ha.

3.2 FLD other than oilseeds and pulses

3.2.1 FLD on Cereal crops

A total of 2562 demonstrations were demonstrated in an area 1025.68 ha on cereals and 89 demonstrations on 35.22 ha area in millets were laid out, covering important cereal and millets crops like paddy, wheat, barley, maize and bajra in all the cropping seasons. Details are given in Table-3.4.

Table 3.4: FLD on Cereals and Millets

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield q/ha)	% increase
Cereal crops						
Paddy (87)	ICM	55	22.00	54.30	40.32	34.68
	IDM	80	30.00	52.99	35.78	48.09
	INM	125	50.00	51.23	40.63	26.09
	IPM	105	42.00	48.35	32.87	47.09
	RCT	45	18.00	39.53	35.72	10.69
	VE	450	180.00	38.48	29.24	31.60
	WM	68	31.40	53.86	43.66	23.36
	Total/Avg	928	373.40	48.39	36.89	31.19
Scented Rice (4)	VE	15.5	6.20	56.71	43.88	29.24
		15.5	6.20	56.71	43.88	29.24
Coarse Rice (6)	VE	15	6.00	36.915	32.32	14.22
	WM	7.5	3.00	66.97	46.37	44.43
	Total/Avg	22.5	9.00	51.9425	39.35	32.02
Wheat (87)	FM	101	40.56	46.23	38.58	19.83
	ICM	113	44.87	44.56	38.23	16.56
	IDM	48	19.12	47.23	40.94	15.36
	INM	197	78.48	42.32	35.23	20.12
	RCT	163	65.13	48.54	32.54	49.17
	VE	652	260.77	42.13	32.58	29.31

	WM	195	78.21	42.58	34.23	24.39
	Total/Avg	1469	587.14	44.80	36.05	24.28
Barley (3)	VE	15	5.88	32.58	29.78	9.40
	Total/Avg	15	5.88	32.58	29.78	9.40
Maize (8)	ICM	38	15.00	58.32	45.69	27.64
	INM	32	12.56	56.55	43.88	28.87
	IPM	7	2.50	45.14	35.88	25.81
	VE	35	14.00	35.89	26.77	34.07
	Total/Avg	112	44.06	48.98	38.06	28.70
Grand Total/Avg		2562	1025.68	47.23	37.33	26.52
Millet						
Bajra(10)	ICM	30	12.00	22.45	18.12	23.90
	VE	59	23.22	31.56	26.33	19.86
	Total/Avg	89	35.22	27.01	22.23	21.51

Paddy: The demonstrations on 7 thematic areas were conducted at 928 farmers' fields on 373.40 ha area by 87 KVKs. The average yield of 48.39 q/ha was achieved in demonstrations, which was 31.19 % higher over local check (36.89 q/ha).. The highest yield of 54.30 q/ha was recorded in ICM component followed by 53.86 q/ha under WM.

Wheat: The wheat demonstrations on different thematic areas were conducted at 1469 farmers' fields covering an area of 587.14 ha. On an average 44.80 q/ha of yield was recorded in demonstrations, which was 24.28 % higher over local check (36.05 q/ha). The highest yield of 48.54 q/ha was recorded under RCT.

Barley: Two KVKs laid out barley demonstrations at 15 farmers' fields covering an area of 5.88 ha. On an average 32.58 q/ha of yield was obtained over local check (29.78 q/ha) which was 9.40 % higher over local check.

Maize: Seven KVKs laid out maize demonstrations at 112 farmers' field covering an area of 44.06 ha. On an average 48.23 q/ha of yield was obtained over local check (37.33 q/ha) which was 26.52 %. The highest yield of 58.32 q/ha was recorded under ICM.

Millets:

Bajra: The demonstrations on varietal evaluation and integrated crop management of bajra were laid out at 89 farmers' fields on 35.22 ha area. On an average 27.01 q/ha of yield was recorded in demonstrations, which was 21.51 % higher over local check (22.23 q/ha). The highest yield of 31.56 q/ha was recorded under varietal evaluation.

3.3.2 FLD on Vegetable crops

A total of 664 demonstrations on 249.64 ha were laid out on vegetables covering important crops in all the three crop seasons.

Table 3.5: FLD on Vegetables

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield (q/ha)	% increase
Bittergourd (14)	INM	6	2.20	300.54	255.65	17.56
	IPM	16	7.00	262.45	230.25	13.98
	ICM	8	3.00	170.89	157.36	8.60
	VE	32	12.54	335.65	254.23	32.03

	Total	62	24.74	267.38	224.37	19.17
Brinjal (13)	ICM	12	4.50	405.69	345.12	17.55
	IPM	27	11.00	185.23	160.58	15.35
	VE	25	10.00	389.65	320.55	21.56
	Total	64	25.50	326.86	275.42	18.68
Broccoli (2)	ICM	10	4.00	68.56	49.89	37.42
	Total	10	4.00	68.56	49.89	37.42
Cabbage (6)	INM	10	2.00	359.56	295.45	21.70
	VE	12	3.78	231.89	187.45	23.71
	Total	22	5.78	295.73	241.45	22.48
Cauliflower (11)	INM	15	6.00	235.12	213.56	10.10
	IPM	13	5.00	347.89	238.98	45.57
	VE	54	21.54	223.56	182.12	22.75
	Total	82	32.54	268.86	211.55	27.09
Chilli (10)	IDM	8	3.00	152.32	114.23	33.35
	IPM	30	12.00	212.78	159.85	33.11
	VE	14	5.21	156.35	113.96	37.20
	Total	52	20.21	173.82	129.35	34.38
Cowpea (3)	ICM	10	2.00	152.21	127.22	19.64
	VE	33	13.00	145.32	112.35	29.35
	Total	43	15.00	148.77	119.79	24.19
Cucumber (4)	RCT	14	5.00	58.95	38.25	54.12
	Total	14	5.00	58.95	38.25	54.12
Okra (9)	ICM	14	5.54	885.56	408.35	116.86
	IPM	8	2.87	149.82	117.54	27.46
	VE	16	5.57	113.54	96.55	17.60
	Total	38	13.98	382.97	207.48	84.58
Onion (20)	ICM	10	4.00	262.35	204.55	28.26
	INM	5	2.00	251.45	218.89	14.88
	VE	30	12.00	260.88	161.45	61.59
	Total	45	18.00	258.23	194.96	32.45
Potato (16)	IDM	10	4.00	355.41	314.25	13.10
	IPM	33	13.00	330.54	254.94	29.65
	Total	43	17.00	342.98	284.60	20.51
Spongegourd (2)	VE	5	1.25	123.25	104.55	17.89
	Total	10	0.75	121.00	105.00	15.24
Tomato (28)	IDM	16	6.23	296.35	195.21	51.81
	INM	13	5.00	261.58	202.55	29.14
	IPM	15	6.00	112.36	96.36	16.60
	VE	32	12.02	390.56	312.54	24.96
	Total	76	29.25	265.21	201.67	31.51
Vegetable pea(16)	ICM	30	12.00	365.23	201.55	81.21
	IDM	35	14.00	71.45	58.77	21.58
	INM	10	3.89	137.22	119.87	14.47
	VE	28	11.00	118.35	95.88	23.44
	Total	103	40.89	173.06	119.02	45.41
Grand Total		664	249.64	211.91	168.44	25.81

Bitter gourd: A Total 14 KVKs conducted demonstrations at 62 farmers' fields on 24.74 ha area under different thematic area. Average yield 267.38 q/ha was recorded in demonstrations, which was 19.17 % higher over local check (224.37 q/ha).

Brinjal: A total of 64 demonstrations were carried out by 13 KVKs on 25.50 ha area in the field of VE, IPM, ICM, and varietal interventions showed yield potential of **326.86** q/ha against **275.42** q/ha in checks, showing an increase of 18.68 %. The highest yield was obtained under ICM (405.69 q/ha).

Broccoli: A total 10 demonstrations were carried out by only one KVK on 4 ha area in the field of ICM showed yield potential of 68.56 q/ha against 49.89q/ha in checks, showing an increase of 37.42 %.

Cabbage: Four KVKs conducted demonstrations at 22 farmer's fields in an area of 5.78 ha on INM and varietal evaluation with yield level of 359.56 q/ha against check yield of 295.45 q/ha showing an increase of 21.70%.

Cauliflower: A total of 82 demonstrations were conducted in an area of 32.54 ha by 11 KVKs on INM, IPM and VE with yield level of 268.86 q/ha against local check yield of 211.55 q/ha showing an increase of 27.00 % Highest yield of 347 q/ha was recorded under IPM followed by 235.12 q/ha in INM.

Chilli: Nine KVKs laid out 64 demonstrations on three different components IDM, IPM and varietal evaluation with average yield of 173.82 q/ha showing an increase of 34.38 % over local check (129.35 q/ha).

Cowpea: Three KVKs laid out 43 demonstrations on two different components ICM and varietal evaluation with average yield of 148.77 q/ha showing an increase of 24.19 % over local check (119.79 q/ha).

Cucumber: A total of 14 demonstrations were conducted in an area of 5.00 ha by four KVKs on RCT with yield level of 58.95 q/ha against local check yield of 38.25 q/ha showing an increase of 54.12 %.

Okra: Nine KVKs conducted 38 demonstrations on 13.98 ha area with average yields of 382.97 q/ha against 207.48 q/ha in local check with an increase of 84.58 %. The highest yield was recorded in ICM as 885.56 q/ha.

Onion: The onion demonstrations on different thematic areas namely ICM, INM and Varietal evaluation were conducted at 45 farmers' fields covering 18.00 ha area by 20 KVKs. The average yield was obtained under demonstration was 258.23 q/ha against local check yield of 194.96 q/ha showing an increase of 32.45%.

Sponge gourd: Only two KVK conducted 10 demonstrations in an area of 0.75 ha with yield level of 121.00 q/ha against check yield of 105.00 q/ha showing an increase of 15.24%.

Tomato: 76 demonstrations were conducted by 28 KVKs in 29.25 ha area, exhibited 265.21 q/ha of yield against local check (201.67 q/ha) showing an increase of 31.51 % higher.

Vegetable Pea: A total of 103 demonstrations laid out by 16 KVKs with four interventions namely ICM, IDM, INM and Varietal evaluation on 40.89 ha area. The average yield was observed 173.06 q/ha against 119.02 q/ha in local check with an increase of 45.41 %.

3.3.3 FLD on fruit crops

Under FLD on fruits component, a total of ten KVKs conducted 83 demonstrations on 33.23 ha area by conducting demonstrations on banana, guava, mango and papaya with an average yield of 849.56, 329.86, 111.58 and 632.15 respectively. Percentage increase in yield of banana (31.60 %), guava (21.03 %), mango (15.56 %) and papaya (52.74 %) were obtained.

Table 3.6: FLD on fruits

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield (q/ha)	% increase
Banana(3)	INM	15	6.23	849.56	645.56	31.60
	Total	15	6.23	849.56	645.56	31.60
Guava(3)	IPM	30	12.00	329.86	272.54	21.03
	Total	30	12.00	329.86	272.54	21.03
Mango(5)	IPM	33	13.00	111.58	96.56	15.56
	Total	33	13.00	111.58	96.56	15.56
Papaya(3)	VE	5	2.00	632.15	413.87	52.74
	Total	5	2.00	632.15	413.87	52.74
Grand Total		83	33.23	480.79	357.13	34.62

3.3.4 FLD on spices

Under FLD on spices a total of 12 KVKs conducted 65 demonstrations on 25.00 ha area by conducting demonstrations on Chilli, coriander, cucumber, onion and turmeric with an average yield of 232.55 q/ha, 30.55 q/ha, 42.68, 251.01 and 251.55 q/ha respectively. Percentage increase in yield of chilli (20.18%), coriander (20.72 %), cucumber (10.09 %), onion (14.59 %) and turmeric (32.09 %) were obtained.

Table 3.7: FLD on spices

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield (q/ha)	% increase
Chilli(2)	VE	5	2.00	232.55	197.88	17.52
	Total	5	2.00	232.55	193.5	20.18
Coriander(3)	INM	18	7.00	36.88	30.55	20.72
	Total	18	7.00	36.88	30.55	20.72
Cucumber(2)	INM	13	5.00	42.68	38.77	10.09
	Total	13	5.00	42.68	38.77	10.09
Onion(3)	INM	9	3.00	210.55	189.35	11.20
	IPM	10	5.00	291.47	248.77	17.16
	Total	19	8.00	251.01	219.06	14.59
Turmeric(2)	ICM	10	3.00	251.55	190.44	32.09
	Total	10	3.00	251.55	190.44	32.09
Grand Total		65	25.00	162.93	134.46	21.17

3.3.5 FLD on commercial crops

Under FLD on commercial crops, a total of 237 demonstrations were laid out on 95.14 ha by 17 KVKs.

Table 3.8: FLD on commercial crops

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield (q/ha)	% increase
Mentholmin(1)	IPM	10	5.00	135.55	121.78	11.31
	Total	10	5.00	135.55	121.78	11.31
Potato(4)	IDM	63	25	334.25	294.44	13.52
	INM	10	4	327.55	305.89	7.08
	IPM	30	12	345.56	292.56	18.12
	Total	103	41	335.79	297.63	12.82
Sugarcane(12)	ICM	73	29.22	848.55	742.56	14.27
	IDM	10	4.00	912.44	789.54	15.57
	IPM	15	6.00	935.22	820.24	14.02
	WM	14	5.22	957.88	930.55	2.94
	IPM	12	4.70	982.68	818.77	20.02
	Total	124	49.14	927.35	820.33	13.05
Grand Total		237	95.14	466.23	413.25	12.82

Mentha: One KVK conducted 10 demonstrations in an area of 5.00 ha with IPM intervention. The average yield was obtained 135.55 q/ha in comparison to local checks where it was 121.78 q/ha, showing an increase of 11.31 %.

Potato: A total of 103 demonstrations laid out by 4 KVKs with three interventions namely IDM, INM and IPM on 41.00 ha area. The average yield of 335.79 q/ha with an increase of 12.82 % over local check (297.63 q/ha) was obtained.

Sugarcane: 12 KVKs conducted demonstration at 124 farmers' fields with five interventions namely ICM, IDM, IPM, WM and IPM in an area of 49.14 ha resulted yield of 927.35 q/ha against 820.33 q/ha in local check showing an increase of 13.05 %. The highest yield of 982.68 q/ha obtained under IPM.

3.3.6 FLD on Fodder crops

Under FLD on fodder crops, a total of 872 demonstrations were laid out on 94.85 ha by 25 KVKs.

Table 3.9: FLD on fodder crops

Crop/ No. of KVK	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check Yield (q/ha)	% increase
Berseem (12)	ICM	93	11.00	730.00	630.00	15.87
	VE	198	17.60	599.61	360.91	66.14
	Total	291	28.60	664.81	495.46	34.18
Jowar(2)	FM	39	3.20	450.00	295.00	52.54
	Total	39	3.20	450.00	295.00	52.54
Maize(2)	VE	330	31.80	557.40	395.23	41.03

	Total	330	31.80	557.40	395.23	41.03
Napier(2)	IFM	10	0.25	130.00	85.00	52.94
	Total	10	0.25	130.00	85.00	52.94
Oat(1)	VE	22	1.00	466	390	19.49
	Total	22	1.00	466	390	19.49
Sorghum(6)	ICM	67	10.00	607.40	545.90	11.27
	VE	113	20.00	522.23	403.74	29.35
	Total	180	30.00	564.81	474.82	18.95
Grand Total		872	94.85	472.17	355.92	32.66

Berseem: The twelve KVKs conducted 291 demonstrations on 28.60 ha area with an average yields of 664.81 q/ha against 495.46 q/ha in local check. The yield gain was 34.18 % higher over local check.

Jower: The two KVKs conducted 39 demonstrations on 3.20 ha area with an average yields of 450 q/ha against 295.00 q/ha in local check. The yield gain was 52.54% higher over local check.

Maize: Two KVKs laid out 330 demonstrations on 31.80 ha area on fodder maize. The average yield was obtained by 557.40 q/ha over local check (395.23 q/ha) which was 41.03 % higher.

Napier: The two KVKs conducted 10 demonstrations on 0.25 ha area with an average yields of 130.00 q/ha against 85.00 q/ha in local check. The yield gain was 52.94% higher over local check.

Oat: One KVKs conducted 22 demonstrations in an area of 1.00 ha with an average yield of 466.00 q/ha against 390.00 q/ha in local check. The yield gain was 19.49% higher over local check.

Sorghum: Six KVKs conducted demonstration at 180 farmers' fields in an area of 30 ha resulted average yield of 564.81 q/ha against 474.82 q/ha in local check showing an increase of 18.95%. The highest yield of 607.40 q/ha obtained under ICM intervention.

3.3.7 FLD on livestock

Demonstrations on different interventions on livestock were carried out. A total of 1660 demonstrations were laid out on enhancing milk yield, disease management, nutritional management & Dairy, etc. 77 KVKs have conducted 1660 demonstrations on cattle, 29 KVKs on Buffalo with 332 demonstrations, 8 KVK on goat and sheep with 59 demonstrations and 2 KVKs on vaccination with 342 demonstrations.

Table 3.10: FLD on livestock

Category	No. of KVKs	No. of Demonstrations	No. of Unit/Area
Buffalo	29	332	492
Buffalo calf	6	40	76
Cattle	20	426	655
Cattle calf	5	106	480
Goat	8	59	1619
Poultry	4	27	225
Vaccination	2	342	1287
Others	3	328	1053
Total	77	1660	5887

3.3.8 FLD on hybrid crops

Hybrid Cereals: The fourteen KVKs laid out demonstrations on hybrid varieties of bajra, maize and paddy at 276 farmers' fields in an area of 109.87 ha. The demonstration yield of paddy (65.89 q/ha), maize (65.89 q/ha) and bajra (37.88 q/ha) was recorded. The percentage yield increase was 25.28, 28.09, and 21.72% respectively over local check.

Hybrid Vegetables & fruits: The fifteen KVKs conducted 34 demonstrations on important hybrid vegetable crops in 11.60 ha area. Among the vegetables, cabbage registered yield q/ha (357.02), cauliflower (193.47), okra (156.32), and tomato (564.22). The percentage yield increase in yield was 22.20, 23.06, 42.71 and 13.17 respectively over local check. Also one KVK conducted 5 demonstrations on watermelon on 2 ha area with yield gain of 50.31 %.

Table 3.11: FLD on hybrid crops

Crop/No. of KVKs	No. of Farmers	Area(ha)	Demo Yield(q/ha)	Check Yield(q/ha)	% Increase in yield
Cereal crop					
Bajra(2)	43	17	37.88	31.12	21.72
Maize(6)	100	40	65.89	51.44	28.09
Paddy(6)	133	52.87	67.25	53.68	25.28
Total(Cereal)	276	109.87	57.01	45.41	25.53
Fruits					
Watermelon(1)	5	2	367.22	244.31	50.31
Total(Fruit)	5	2	367.22	244.31	50.31
Vegetable					
Bittergourd	4	1.25	160.22	117.02	36.92
Cabbage	5	2	357.02	292.15	22.20
Cauliflower	8	3	193.47	157.22	23.06
Cauliflower	5	2	231.23	182.55	26.67
Okra	3	1	156.32	109.54	42.71
Tomato	5	2	564.22	498.56	13.17
Others	4	0.35	111.25	42.32	162.88
Total(veg)	34	11.6	253.39	199.91	26.75
Grand Total	315	123.47	225.87	163.21	38.39

3.3.9 FLD on other enterprises

A total of 67 KVKs conducted 1164 demonstrations on 154 units and 564 ha area. Enterprises covering apiculture (5), button mushroom (35), dhingari mushroom (20), kitchen garden (989), oyster mushroom (15), value addition (55), vermin compost (40) and women empowerment (5). The highest covering area was under kitchen gardening (561 ha) with 989 farmers.

Table 3.12: FLD on other enterprises

Category	No. of KVKs	No. of farmers	No. of units/area ha
Apiculture	2	5	5
Button Mushroom	10	35	35
Dhingari mushroom	2	20	12
Kitchen Garden	38	989	561 ha
Oyster Mushroom	2	15	15
Value addition	7	55	44
Vermicompost	4	40	40
Women Empowerment	2	5	3
Total	67	1164	154 units/561 ha

3.3.10 FLD on farm implements

Twenty nine KVKs demonstrated farm implements zero tillage (452), naveen sickle (22), seed cum ferti drill(20), happy seeder (51), thresher (42), rotavator (204), laser land levelor(44) and paddy drum seeder(58) covering an area of 582.08 ha by involving total 1094 farmers.

Table 3.13: FLD on farm implements

Machinery/No. of KVKs	No. of Farmer	Area(ha)
Zero Tillage (3)	452	184
Naveen Sickle (2)	22	22
Seed cum ferti drill (2)	20	8
Happy seeder (2)	51	51
Thresher (2)	42	16
Rotavator (1)	204	92
Laser land levelor (1)	44	28
Paddy Drum Seeder (4)	58	34.52
Others (12)	201	146.56
Grand Total	1094	582.08

CLUSTER FRONTLINE DEMONSTRATIONS ON PULSES



CFLD on chickpea (GNG-2144): KVK Unnao



CFLD on greengram (Sweta): KVK Firozabad



CFLD on lentil (IPL-316): KVK Hamirpur



CFLD on pigeonpea (NA-1): KVK Chandauli



CFLD on Blackgram (PU-31): KVK Shahjahanpur



CFLD on Blackgram (Mash 479): KVK Unnao



CFLD on pigeonpea (IPA-203): KVK Kaushambic



CFLD on greengram (Shikha): KVK Mathura

CLUSTER FRONT LINE DEMONSTRATIONS ON OILSEEDS



CFLD on sunflower (Modern): KVK Sitapur-II



CFLD on mustard (NRCHB-101): KVK Gorakhpur-I



CFLD on groundnut (Raj-2): KVK Kaushambi



CFLD on mustard (RH-725): KVK Hathrus



CFLD on sesame (Pragati): KVK Hardoi-I



CFLD on mustard (RH-0749): KVK Hapur

FRONT LINE DEMONSTRATIONS ON OTHER THAN OILSEED & PULSES



FLD on okra (Kashi kranti): KVK Sitapur-II



FLD on bajra (Hyb 86M84): KVK Kaushambi



FLD on paddy (Narendra 2065): KVK Prayagraj-I



FLD on Turmeric (NDH-1): KVK Sultanpur-II



FLD on wheat (HD 2967): KVK Deoria



FLD on berseem (JHB-146): KVK Deoria



FLD on papaya & mausambi : KVK Hamirpur



FRONTLINE DEMONSTRATIONS ON ENTERPRISES



FLD on drum seeder : KVK Sultanpur-II



FLD on goatery: KVK Hamirpur



FLD on cow feeding management: KVK Gorakhpur-I



FLD on Poshan Thali under Home Science: KVK Gorakhpur-I



FLD on kitchen gardening: under Home Science KVK Hamirpur

Chapter-4

TECHNOLOGY ASSESSMENT

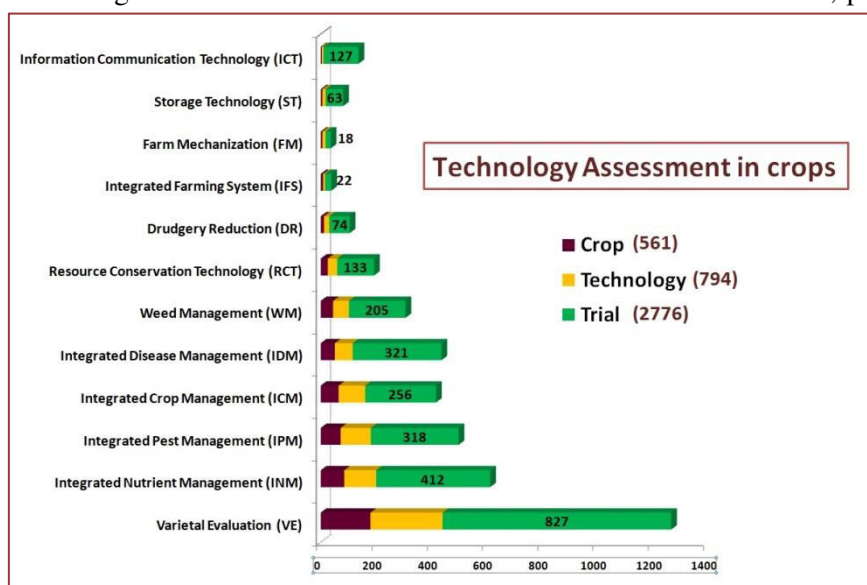
KVKs of Uttar Pradesh are performing on-farm testing to identify the location specificity of agricultural technologies under various micro farming situations. Total 1032 technologies were assessed and 3941 trials conducted under three categories namely, crop (2776), livestock (763) and other enterprises (402) are shown in following Table 4.1.

Table-4.1 Physical achievement of Technologies Assessed at a glance

Category of technologies assessed	Technology	Trials
Crop	794	2776
Livestock	166	763
Other enterprise	72	402
Total	1032	3941

4.1 CROP RELATED TECHNOLOGY ASSESSMENT

KVKs of Zone III of Uttar Pradesh conducted on-farm trials in 12 major thematic areas. Total of 794 technologies were tested with involvement of 2776 farmers. Cereals, pulses, oilseeds, vegetables, fruits,



cash crops, etc. were assessed under twelve thematic areas namely Varietal Evaluation (261), integrated pest management (109), integrated nutrient management (116), integrated disease management (65), integrated crop management (96), weed management (57), resource conservation technologies (34), drudgery reduction (19), integrated farming system (7), Information & communication technology (6), Storage Technology (12) and farm mechanization (12), etc.

Table-4.2 Crop related technologies assessed by KVKs

Thematic Area	Crop	Technology	Trial	No. of KVKs
Integrated Nutrient Management (INM)	85	116	412	37
Varietal Evaluation (VE)	180	261	827	65
Integrated Pest Management (IPM)	72	109	318	32
Integrated Crop Management (ICM)	65	96	256	31
Integrated Disease Management (IDM)	51	65	321	23
Weed Management (WM)	45	57	205	20
Integrated Farming System (IFS)	9	7	22	3
Farm Mechanization (FM)	6	12	18	4
Drudgery Reduction (DR)	12	19	74	7
Resource Conservation Technology (RCT)	26	34	133	10
Information Communication Technology (ICT)	4	6	127	4
Storage Technology (ST)	6	12	63	4
Total	561	794	2776	-

4.2 ASSESSMENT OF LIVESTOCK TECHNOLOGIES

A total of 166 technologies were assessed under livestock management by KVKs of Zone III Uttar Pradesh with active participation of 763 beneficiaries (Table-4.3). The technologies related to different thematic areas like feed and fodder management (22), nutritional management (64), disease management (34), production & management (14), dairy management (9), evaluation of breeds (16), composite fish culture (3) and health management (4) were assessed.

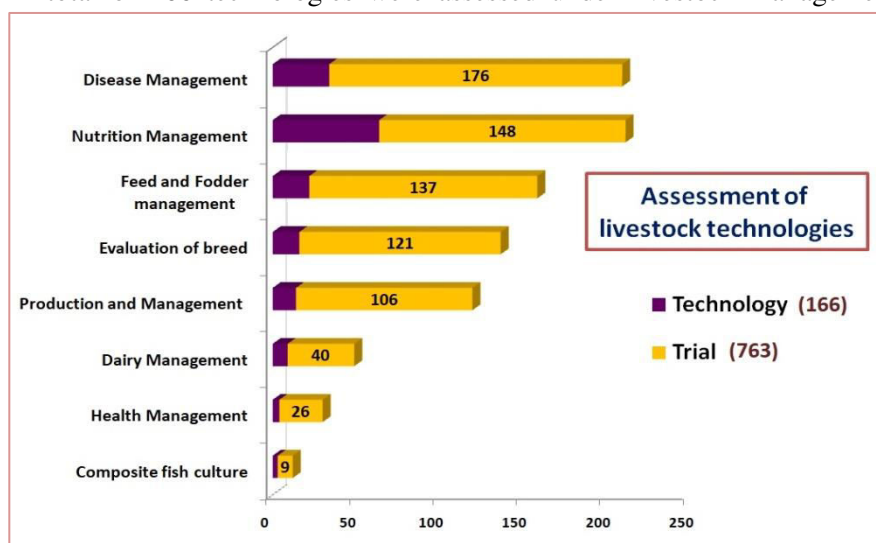
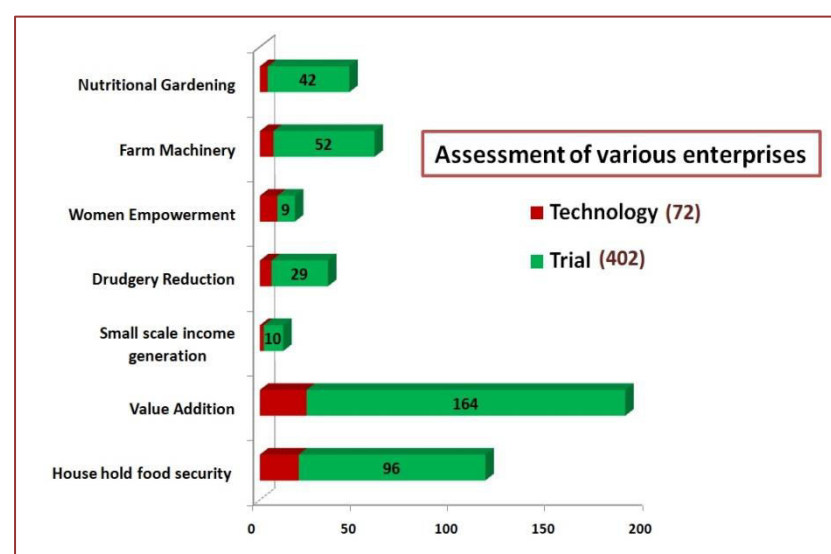


Table 4.3: Assessment of livestock technologies

Thematic Area	Enterprises	Technology	Trial	No. of KVKs
Disease Management	Cow, Buffalo, goat, calf,	34	176	15
Evaluation of breed	Cow, Buffalo, goat, calf	16	121	8
Feed and Fodder management	Cattle, Buffalo, fodder	22	137	11
Nutrition Management	Cattle, Buffalo and Goat	64	148	15
Production and Management	Goat	14	106	3
Health Management	Cow, Buffalo, goat, calf,	4	26	1
Composite fish culture	Fishery	3	9	2
Dairy Management	Dairy	9	40	5
Total		166	763	-

4.3 ASSESSMENT OF TECHNOLOGIES RELATED TO ENTERPRISES



Thematic areas like value addition (24), drudgery reduction (6), household food security (20), women empowerment (9), farm machinery (7), nutritional gardening (4) and small scale income generation (2) were taken up for assessment. 402 beneficiaries were involved in different enterprises (Table-4.4). Kitchen gardening, house hold security, value addition, Agro forestry Management, small scale income generation etc. were considered as an economic activity and to support

nutritional security of the farmers.

Table 4.4: Assessment of various enterprises

Thematic Area	Enterprises	Technology	Trial	No. of KVKs
House hold food security	Vegetables	20	96	11
Value Addition	Paneer, Aonla, <i>Badi</i> , Flour	24	164	14
Small scale income generation	Honey Production, Composite Fish Culture	2	10	1
Drudgery Reduction	Drudgery reduction	6	29	5
Women Empowerment	Women empowerment	9	9	5
Farm Machinery	Farm Machinery	7	52	3
Nutritional Gardening	Kitchen Gardening	4	42	2
Total		72	402	-

4.4 RESULTS OF SELECTED ON FARM TRIALS

4.4.1 VARIETAL EVALUATION

Problem definition: Low quality in production of Paddy

Technology Assessed: Evaluation of chemical and organic farming in Basmati paddy production.

KVK Baghpat has conducted On Farm Trial on “Evaluation of chemical and organic farming in Basmati paddy production”. Use of all organic management like earthworm manure and waste decomposer in paddy (Pusa-1121) as well as Jeevamrit and Neem oil etc over farmer practice i.e. only use of waste decomposer in paddy (Pusa-1121) were tested.

The results obtained from the trial showed the net profit of. Rs. 1042225.00/ha on the basis of local tests, it is clearly seen in below table all bio-control methods like earthworm manure and waste decomposer in paddy as well as Jeevamrit and Neem oil etc. are recommended.

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 : Use of waste decomposer in paddy (Farmers Practice)	03		25.15	-	31450	103115	71685	3.27
T ₂ : Use of vermicompost + waste decomposer + in paddy			33.75		34150	138375	1042225	4.05



Problem definition: Low Productivity of Timely Sown Wheat due to yellow Rust

Technology Assessed: Evaluation of newly released high yielding timely sown wheat variety against disease resistance and better yield.

The KVK Bijnor conducted On-farm trial on timely sown wheat varieties to find out suitable high yielding timely sown wheat varieties for better yield with disease resistance, crop duration and lodging also at farmer's field situation. The varieties tested were HD-3226, DBW-222 and DBW-17 as check. The sowing dates of these varieties are 15 to 20 November 2020 with 08 to 15 April 2021 harvesting dates also. The results revealed that yield increase of Timely sown wheat varieties ranged between 22.85 to 35.71 percent over farmers practice. The variety DBW-222 gave highest yield of 57.00 qt. per ha with net return of Rs. 93270.00 and BCR of 2.93. The others technical data as given below:

- Variety DBW-222 takes more or less same crop duration as comparison to HD-3226 and DBW-17.
- The lodging in DBW-222 is none in comparison HD-3226 (2-7) and DBW-17 (7-16%)
- Yellow rust incidence in DBW-222 is none while it is about 3-15% in DBW-17.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Lodging (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (DBW-17)	01 (05 farmers field)	42.00	---	7-16	3-15	57050.00	2.10
T ₂ - HD-3226		51.60	22.58	2-7	00.00	80820.00	2.67
T ₃ - DBW-222		57.00	35.71	0-3	0.00	93270.00	2.93



Problem definition: Low Productivity and low nutrition in Potato

Technology Assessed: Evaluation of newly released high yielding Biofortified Potato varieties.

The KVK Bijnor conducted On-farm trial on Potato varieties to find out suitable high yielding Biofortified Potato varieties for better yield with disease resistance. The varieties tested were Kufari Neelkanth, and Kufari Badshah as check. The sowing dates of these varieties are 25 to 30 October 2020. The results revealed that yield increase of Kufri Neelkanth is 10.70 percent over farmers practice. The variety Kufri Neelkanth gave highest yield of 310.00 qt. per ha with net return of Rs. 96800.00 and BCR of 1.80. The others technical data as given below:

- Variety Kufri Neelkanth takes less crop duration (98-105 days) as comparison to Kufri badshah (110-115 days).
- Disease incidence in Kufri Neelkanth is very less while it is about 8-25% in Kufri Badshah.

- Kufri Neelkanth is like by farmers due to their nutritional quality (It is rich in antioxidants-anthocyanins > 100µg/100g fresh wt. & carotenoids~200 µg/100g fresh wt.).

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Local (Kufri Badshah)	01	280.00	--	8-25	18000.00	1.14
T ₂ - Kufri Neelkanth	(03 farmers field)	310.00	10.71	2-5	96800.00	1.80




Problem definition:- Low yield of Pigeon Pea.: Basti

Technology Assessed: Assessment of HYV var. of pigeon pea

Technology option	No. of Trials	Yield q/ha	Gross Return Rs/ha	Net Return Rs/ ha	Increase in Yield (%)	BCR
T ₁ NDA-2 (FP)	5	12.38	67471	42171	-	2.66
T ₂ IPA-203		14.25	77662	52362	15.10	3.06

- The result was found treatment T₂ obtained increased yield 15.10 % in comparison of F.P. And B.C. Ratio was found 3.06.
- IPA-203 is wilt resistant. It has more branches rather than NDA-2. Pod has 4-5 grains. The crop was not affected by diseases and insects. Grains are bright.

Problem definition: Low Production & Productivity of Mustard in low land area

Technology Assessed or Refined: Assessment of Varietal Performance of Mustard under Late sown condition in lowland area.

Krishi Vigyan Kendra, Chandauli conducted on-farm trial to enhance the production and productivity of Mustard crop/ha. area/ unit. In District Rice-Wheat is a main cropping pattern but due lack of HYV of Mustard production and productivity of Mustard crop decrease day by day. So KVK, Chandauli conducted a varietal trail on newly released variety DRMRIJ-31(Giriraj) by DRMRH Bharatpur, Rajasthan.

Performance of newly released variety DRMRIJ-31(Giriraj)

Technology Option	No. of trials	Yield (kg/ha)	Increase in Yield (%)	Net Return (Rs/ha.)	B:C Ratio
T ₁ : Use of Old Var. (Varuna)	05	14.10	-	60303	3.65
T ₁ : Use of Var. DRMRIJ-31(Giriraj)		18.35	30.14	63699	4.63

Problem identified: Low yield of wheat due to imbalance use of fertilizer.

Technology Assessed: To assess the use of water soluble NPK in wheat crop.

KVK, Gonda (UP) conducted on-farm trial to assess the use of water soluble NPK in wheat variety HD-2967. In this trial it was observed that average cost of cultivation saved Rs. 2112/ha. but average yield increased about 3.5 q/ha. and net return Rs.6737.5 also more with BC ratio 2.01.

Performance of water soluble fertilizer NPK in wheat crop.

Practice	No. of trials	Technology	Total Cost (Rs.)	Yield	Total return	Total Cost	B:C Ratio
Farmers practice	10	Urea 250.0 kg DAP 125 kg MOP - 0 kg	1625.0 3000.0 4625.0	34.5	66412.5	39187.5	1.69
Recommended practice		Urea 250.0 kg DAP 137.5 kg MOP - 75.0 kg	1625.0 3300.0 1275.0 6200.0	38.0	73150.0	39802.0	1.83
Refined Recommended practice 75% of RP+2 foliar spray of NPK (18:18:18)		Urea 187.5 kg DAP 103.0 kg MOP - 56.25 kg NPK-5 Lit.	1160.0 2472.0 956.0 400.0 4988.0	41.5	79887.5	39635.5	2.01

Feedback

1. Use of Liquid fertilizer has better response in respect of average yield and cost saving .
2. Farmers accepted this technology .

4.4.2 INTEGRATED NUTRIENT MANAGEMENT

Problem definition : Imbalanced use of Fertilizer in Paddy.

Technology assessed : Assessment of fertilizer dose in Paddy on the basis of soil testing.

Technology Option	No. of trials	Yield q/ha	% age increased	Cost of Cultivation (Rs./ha)	Gross Return (Rs)	Net Return (Rs)	B:C Ratio
T ₁ - Farmer practices (Imbalance use of fertilizers N:P:K 150:75:0:25)	06	42.30	-	64480	131130	69650	2.13
T ₂ -N:P:K:Zn:S:Fe@ N,P,K, Zn & S- 120:60:40:25:20 & 0 kg/ha.)		48.90	15.60	49780	151590	101810	3.05

Variety Pusa- 1121 Sale price Paddy @ Rs. 3100 /qt

Feed back: It is difficult for farmer of interior location to reach the soil testing laboratory.

Farmers Name	pH	EC	OC%	P ₂ O ₅	K ₂ O	S	Zn	B	Fe	Mn	Cu
Kartar Singh	7.50	0.29	0.31	14.4	120	1.9	0.48	0.51	1.0	4.9	5.1
Anuj	7.60	0.27	0.35	15.3	118	4.8	0.30	0.55	1.1	5.4	4.9
Subhash	7.55	0.25	0.29	18.2	125	3.7	0.29	0.54	1.4	5.6	5.4

Soil Status Nitrogen- Low, fertilizer based- 210 Kg/ha.

Phosphorus - Low, 132 Kg/ Ha

Potash- Medium, 102 Kg/ha., Sulphur- 40 Kg/ha.

Zinc (21 %)- 25 Kg/ha., Ferrous- 25 K

Problem definition: Low yield of late shown wheat due to imbalance use of fertilizer

Technology Assessed: Use of Recommended dose of fertilizer and micronutrients on soil test basis

The farmers selected for OFT were involved from initial stage i.e. designing of OFT, selection of treatment and in whole process of yield improvement.

At the time of intervention application (critical input) both scientist, selected farmers and nearby farmers were present at oft field and observed the happenings closely. This whole process led to clear understanding of the oft objective and farmer were able differentiate between T2 treatment in comparison to the farmer practice.

Impact assessment of micro nutrient with Recommendation dose of NPK in Late shown wheat

Technology Option	No. of trials	Area (ha.)	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross income (Rs)	Net returns (Rs)	BC ratio (Rs)
T ₁ = Farmer practice	03	0.60	36.15	-	58690	86720	28030	1.47
T ₂ = Recommendation dose of NPK (150:60:60) & micronutrients (Fe, Zn, S & B)			42.13	16.54	61630	101670	40033	1.68



Sale price-Rs1975/=

Feed back: Application of NPK, with micronutrient was found better yield potential in field condition

Problem definition: Low yield of Sugarcane due to imbalance use of fertilizer

Technology Assessed: Use of Recommended dose of fertilizer and micronutrients on soil test basis

The farmers selected for OFT were involved from initial stage i.e. designing of OFT, selection of treatment and in whole process of yield improvement.

At the time of intervention application (critical input) both scientist, selected farmers and nearby farmers were present at OFT field and observed the happenings closely. This whole process led to clear understanding of the OFT objective and farmer were able differentiate between T2 treatment in comparison to the farmer practice.

Impact assessment of micro nutrient with Recommendation dose of NPK in Sugarcane

Technology Option	No. of trials	Area (ha.)	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross income (Rs)	Net returns (Rs)	BC ratio (Rs)
T ₁ = Farmer practice (Imbalance use of fertilizers NPK)	03	0.60	860	-	86250	279500	193250	3.24
T ₂ = Recommendation dose of NPK (180:60:60) & micronutrients(Fe, Zn, S & B)			900	4.65	87750	292500	204750	3.33



Sale price-Rs 325 /=

Feed back: Application of NPK, with micronutrient was found better yield potential in field condition

Problem definition: Low yield in cucumber production

Technology Assessed: Use of balance fertilizer with micro nutrient in cucumber.

KVK Baghpat has conducted On Farm Trial on “Use of balance fertilizer with micro nutrient in cucumber” testing Use of NPK + micro nutrient over farmer practice (Use of DAP + Urea). The results obtained from the trial showed that use of NPK with micro nutrient performed higher yield 142 q/ha than farmer practice i.e. use of DAP along Urea with 1100 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 : Use of DAP + Urea (Farmers Practice)	03	110	-	12600	375000	362400	2.87
T ₂ : Use of NPK + micro nutrient		142		14840	537500	522660	3.52



Farmers Feedback: Use of NPK + micronutrient was found better in terms of high yield and farmers appreciated.

Problem definition: Low yield of cauliflower Due to Deficiency of Molybdenum

Technology Assessed: Application of Molybdenum @600g per acre

KVK Belipar Gorakhpur conducted OFT on INM in cauliflower (cv. Madhuri), application of molybdenum @ 600g/acre and spray of soluble fertilizer(18:18:18) @0.5% at 30&45 DAP with RDF (120:60:60 NPK)

Table Technology Option	No of trials	Yield (q/ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T1 :Improved variety (madhuri), Application of Ammonium molybdate @ 600g/acre and Spray of soluble fertilizer(18:18:18) @0.5% at 30&45 DAP with RDF (120:60:40 NPK)	5	295	--	119500	3.07
T2 : (FP) Improved variety (madhuri), No Application of Ammonium molybdate and Spray of soluble fertilizer(18:18:18) @0.5% at 30&45 DAP with RDF (120:60:40 NPK)		257	14.78	101000	2.89

Technology Option	No of trials	Avg. wt. of flower/plant (g)	Gross cost (Rs./ha)	Gross return (Rs./ha)
T1 : Improved variety (madhuri), Application of Ammonium molybdate @ 600g/acre and Spray of soluble fertilizer(18:18:18) @0.5% at 30&45 DAP with RDF (120:60:40 NPK)	5 (0.40 ha)	536	57500	177000
T2 : (FP) Improved variety (madhuri), No Application of Ammonium molybdate and Spray of soluble fertilizer(18:18:18) @0.5% at 30&45 DAP with RDF (120:60:40 NPK)		467	53200	154200

Problem definition: Lower production of Mustard due to imbalance application of nutrients

Technology Assessed: Assessment of Nutrient management in Mustard.

Krishi Vigyan Kendra, Parwaha, Auraiya conducted On Farm Trial to find out appropriate nutrient management practice to enhance the mustard productivity. The assessed apply of NPKS 120,60,60,40 kg./ha fertilizer on mustard crop was found to be better with 23.28% increase in yield.

Table Apply of Balance fertilizers NPKS in enhancing yield of mustard.

Technology Option	No. of trials	No. of plants/m ²	No. of siliqua /plants	Yield (kg./ha)	Increase in Yield (%)	B:C Ratio
No use of Balance fertilizers (Farmers Practice)	05	13	306	17.78		3.76
Apply balance fertilizers NPKS 120:60:60:40 kg./ha (Recommended Practice)		8.8	440	21.9	23.28	4.15

Problem Identified: Low yield of paddy in Usar soil.

Technology Assessed: Optimization of paddy yield in partially reclaimed Usar soil from the use of salt tolerant varieties and Halophilic bio-formulations (Halo Azo, Halo PSB & Halo zinc).

An on farm trial was conducted to improve the productivity of paddy and soil fertility in partially reclaimed usar soil. Salt tolerant varieties of paddy Shiat-1 was introduced with the salt tolerant bio-formulations. Use of bio formulation improved the crop yield up to 12.98% as compare to control

Technology Option	No. of Trials	Yield Q/ha	% increase yield	Net Return Rs./ha	BCR	Soil fertility improvement	
						Available N (Kg/ha)	Available P (Kg/ha)
Shiat-1 (Farmers Practice)	5	38.5	12.98	35700	2.1:1	167	14
Shiat-1+ Bio-formulations Bio-formulations (Halo Azo, Halo PSB & Halo zinc)		43.5		45500	2.3:1	178	17

Result: Use of salt tolerant variety with Halophilic bioformulations not only increases the productivity of crop up to 12.98% but also improves the soil fertility

4.4.3 INTEGRATED PEST MANAGEMENT

Problem definition: Yield loss of 5-27% due to incidence of Nematode in paddy crop

Technology Assessed: Management of Nematode in paddy crop.

High incidence of Nematode in paddy crop resulting in yield loss. KVK Saharanpur conducted on-farm trial to assess the control measure in sick area. The assess technology of Paecilomyces Lily @1 lit./acre with irrigation water.

Effect of Paecilomyces Lily @ 1 lit./acre with irrigation water

Technology Option	No. of trials	Incidence of shoot gall (%)	Yield (q/ha)	% Increase in yield over farmer's practice
Application of Furadon 8 kg/acre (Farmers practice)	05	16	42.6	--
Paecilomyces Lily @ 1 lit./acre with irrigation water		3	55.2	29.6




Recommendation : The production increase due to Paecilomyces Lily @ 1 lit./acre with irrigation water and yield increase 29.6%.

Farmer reaction : Control of heavy incidence of Nematode in paddy crop to Paecilomyces Lily @ 1 lit./acre with irrigation water reduced the 433 percentage of infestation

Problem definition: Low yield of Capsicum due to severe attack of fruit borer

Technology Assessed : Management of fruit borer in Capsicum

An On Farm Trial was conducted in sandy loam soil under irrigated conditions for the assessment of Flubendiamide 39.35 SC @ 125 ml/ha at three locations in Maize-Capsicum cropping system during Rabi 2020-21. Maximum yield (383.94 q/ha) were recorded Flubendiamide 39.35 SC @ 125 ml/ha" while in Farmer Practice 307.17q/ha.

Field evaluation of Flubendiamide 39.35 SC

Technology assessed/Refined	No. of trials	Yield (q/ha)	Infected fruit (%)	Net return (Rs/ha)	BC ratio
T ₁ F P-Cypermethrin 10EC @750 ml/ha	03	307.17	27.31	138236.00	2.29
T ₂ - Flubendiamide 39.35 SC @ 250 ml/ha		383.94	6.25	193652.00	2.71

Recommendations : Use of Flubendiamide against fruit borer gave 25.00% more yield as compare to FP. It is highly effective against fruit borer.

Farmers Reaction : It is good insecticide for fruit borer

Problem definition: Yield loss of 25-50% due to heavy incidence of shoot gall maker insect in mango orchard

Technology Assessed: Management of shoot gall maker (Psylliasp) insect in mango orchard.

Mango is an important cash crop of Western UP. However, there is high incidence of shoot gall maker (Psylliasp) insect in mango orchard resulting in yield loss. KVK Saharanpur conducted on-farm trial to assess the control measure. The assess technology of Thiamethoxam @ 1 g/lit. + Profenophos @ 2 ml/lit. water, two spray 26 July & 12 August.

Effect of Thiamethoxam+Profenophosin control of shoot gall maker (Psylliasp) insect in mango orchard

Technology Option	No. of trials	Incidence of shoot gall (%)	Yield (q/ha)	% Increase in yield over farmer's practice
Application of Imida 0.5ml/lit. (Farmers practice)	03	24	187	--
Thiamethoxam@1gm/lit.+Profenophos@2ml/lit. water, two spray 2 & 14 August.		6	232	19.4




Recommendation - The production increase due to spray of Thiamethoxam @ 1 gm/lit. + Profenophos @ 2 ml/lit and yield increase 19.4%.

Farmer reaction - Control of heavy incidence of shoot gall maker insect in mango orchard to spray Thiamethoxam @ 1gm/lit.+Profenophos @ 2 ml/lit., two spray 26 July & 12 August reduced the 600 percentage of insect infestation

Problem Identified: Injudicious use of insecticide without consideration of ETL (2 Larvae m⁻²)-Azamgarh-I

Technology Assessed: To assess the response of NSKE 5% and Triazophos 40 EC for management of pod borer (*Helicoverpa armigera* Hub.) in Chickpea (Rabi, 2020-21).

The pods of chickpea damage by pod borer in many folds and hence, there is an urgent need to manage this serious pest sustainably. Results indicate that use of IPM module recorded the lowest no. of damaged pods per plant while no. of pods per plant was found almost same and finally the yield obtained under IPM module was higher than farmer practice. Economic evaluations are also in favour of treated plots.

Effect of IPM module on Chickpea

Technology Option	No. of trials	No. of affected Pods/plant	No. of pods/plant	Yield (q/ha)	% change in yield	Net Return (Rs/ha)	B:C Ratio
T ₁ : FP: (No any judicial PP measures adopted)	04	5.20	69.7	12.1	--	28538	1.94
T ₂ : Spraying of NSKE 5% fb Triazophos 40 EC @ 780 ml/ha at ETL		1.13	71.0	17.6	45.5	53780	2.60

Cost of Cultivation Rs./ha T₁30450, T₂- 33020, Sale rate @ Rs. 4875/q

- (1) NSKE 5% (Ist spray before flowering and IInd spray after 50% flowering)
- (2) Triazophos 40 EC (at ETL- 2 Larvae/m²)

Problem definition : Low production of fresh Bitter Gourd due to heavy attack of fruit fly

Technology Assessed: To assess the performance of technology for management of fruit fly in bitter gourd

KVK, Jaunpur conducted on-farm trial to Assessment of the performance of technology for management of fruit fly In bitter guard. Growing of maize as border crop Use of poison bait (Gur 100 gm + wheat barn 200 gm + 20 ml Novaluron + 200 ml water). Spraying of Flubendiamid 39.35 EC @ 0.3 ml/ lit of water reduced the percentage of disease infestation and yield was increased by 36.91 per cent.

To assess the performance of technology for management of fruit fly In bitter gourd

Technology Option	No. of Trials	Fruit fly infestation (%)	Yield (q/ha)	% Increase in yield	BCR
(Farmers Practice) No Seed Treatment . Use of non recommended insecticide in high dose in short duration.	05	36.16	37.52	--	2.86
(Recommended Practice) Growing of maize as border crop + Use of poison bait (Gur 100 gm + wheat barn 200 gm + 20 ml Novaluron + 200 ml water). Spraying of Flubendiamid 39.35 EC @ 0.3 ml/ lit of water.		9.15	51.37	36.91	3.74

Problem : Poor growth of paddy crop.

Technology Assessed: In Kharif season major area covered under paddy crop in Lucknow district. This crop having high incidence of different insects like hoppers(Brown plant hopper, green leaf hopper, white backed plant hopper), gundhi bug and yellow stem borer etc.. Which affected crop growth and yield also. So, KVK,ICAR-IISR,Lucknow conducted an OFT on evaluation of IPM for overcoming the problems in paddy crop. Result showed that treatment T2- Profenophos [50EC@1ml./lit](#) water+ Yellow sticky trap (10 No.) + Pheromone trap (10 No.)

showed insect incidence up to 4.5% and yield was 68.98 q/ha. Cost benefit ratio of demonstration plot and farmers practice were 2.99 and 2.78. Details are as follows:

Technology Option	No. of trials	Avg.% incidence of insects	Av. Yield (q/ha)
T1-Farmers Practices -No use of pesticides	3	17.8	62.30
T2- Profenophos 50EC@1ml./lit water+ Yellow sticky trap (10 No.) + Pheromone trap (10 No.)		4.5	68.98

Economics:

Technology Option	Cost of Cultivation (Rs)	Gross Income (Rs)	Net Income (Rs)	B:C
T1-Farmers Practices -Use of pesticides	43550	120862	77312	2.78
T2- Profenophos 50EC@1ml./lit water+ Yellow sticky trap (10 No.) + Pheromone trap (10 No.)	44750	133821	89071	2.99

Problem definition: Poor quality of potato due to white grub resulted poor appearance and lesser market prices: KVK Kannauj

Technology Assessed: To assess the performance of *Beauveria bassiana* on yield of potato and management of white grub.

Performance of *f Beauveria bassiana* on yield and damage of potato.

Technology Option	No. of trials	Total damaged tubers (%)	Severely damaged tubers (q/ha)	Total Yield (q/ha)	Actual yield (q/ha)	Gross Cost (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
Farmers Practices (No control measures)	10	4.1 (12.43 q)	1.8	303.06	290.63	85000	205630	3.4
Basal application of <i>Beauveria bassiana</i> @ 5 kg/ha		1.4 (4.57q)	0.8	326.19 (7.6%)	321.62 (10.7%)	89000 (4000)	232620 (26990)	3.6

* Market value of produce is Rs. 1000/q for tubers.

Application of *Beauveria bassiana* reduced attack of white grub by about 2.7 % and improved tuber yield by 7.6% i.e. 326.19 q/ha over 303.06 q/ha yield of farmers practice.

4.4.5 INTEGRATED DISEASE MANAGEMENT

Problem definition: Low yield of vegetable pea due to root rot disease

Technology Assessed : Biological control of root rot disease in vegetable pea (2020-21)

Vegetable pea is an important Rabi crop of U.P. However, there is high incidence of root rot disease in vegetable pea resulting in yield loss. Therefore, On Farm Trails at farmer's field on five locations were conducted to control the root rot disease. The technology of soil application of *Trichoderma* powder @ 2.5kg/ha and *Pseudomonas* powder @ 2.5 kg/ha mixed with FYM reduced the percentage of disease incidence from 21.3 to 5.9 as well as 5.1 percent and yield was increased by 31.2 as well as 33.3 per cent respectively.

Effect of Trichoderma powder and Pseudomonas powder in control of root rot disease in Vegetable pea (Variety-Arkel)

Technology Option	No. of trials	Pest Incidence (%)	Yield (q/ha)	% Increase in yield over FP	BC Ratio
T1 = Farmers Practice (Use of Carbofuran 3G @ 20 Kg/ Ha)	05	21.3	61.5	-	1.97
T2 = soil application of Trichoderma powder @ 2.5kg/ha		5.9	80.7	31.2	2.78
T3 = soil application of Pseudomonas powder @ 2.5 kg/ha		5.1	82.0	33.3	2.84

Problem definition: Low production of paddy due to heavy infestation of false smut.

Technology Assessed: To assess the performance of management technology against false smut in paddy

KVK, Barabanki conducted on-farm trial to Assessment of the performance of management technology against false smut in paddy. Seed and soil Treatment with Trichoderma (6g/kg seed and 1kg/ acre). + Spraying of Propiconazole 13.9 + Difenconazole 13.9 % EC @ of 2ml/lt. at tillering/pre flowering stage reduced the percentage of disease infestation and yield was increased by 33.38 per cent.

To assess the performance of management technology against false smut in paddy

Technology Option	No. of Trials	Disease infestation (%)	Yield (q/ha)	% Increase in yield	BCR
(Farmers Practice) No Seed treatment. Use of non recommended insecticide in high doses.	10	33.17	39.87	--	2.0
(Recommended Practice) Seed and soil Treatment with Trichoderma (6g/kg seed and 1kg/ acre). + Spraying of Propiconazole 13.9 + Difenconazole 13.9 % EC @ of 2ml/lt. at tillering / pre flowering stage		7.85	53.18	33.38	2.65

Problem definition: Low yield of Chilli due to Severe infestation of mite and white fly affecting in yield loss up to 35 to 55%

Technology Assessed: Management of Leaf Curling In Chilli.

KVK, Haidergarh conducted on-farm trial to To asses the performance of IPM for management of Leaf Curling In Chilli. The technology of Seedling dip with Imidacloprid 1 ml/ l + thrips & mites spraying of difenthiuron 30 EC @ 0.5 ml/litre + Spraying of Neem oil @ 3ml/litre + Spraying of Imidachloprid 17.8 SL@ 0.25 ml/lt at 20 days interval yielded 34.75% more.

Management of Leaf Curling In Chilli.

Technology Option	No. of trials	% Leaf curling	Yield (q/ha)	% Increase in yield	BCR
(Farmers Practice) No Seed treatment . Use of non recommended pesticides in high dose in short duration.	10	37.15	108.25	--	4.72
(Recommended Practice) Seedling dip with Imidacloprid 1 ml/ l + thrips & mites spraying of difenthiuron 30 EC @ 0.5 ml/litre + Spraying of Neem oil @ 3ml/litre + Spraying of Imidachloprid 17.8 SL@ 0.25 ml/lt at 20 days interval.		7.32	145.87	34.75	7.4

Management of root rot and powdery mildew in vegetable pea.

Technology Assessed: Vegetable pea is an important vegetable crop of Lucknow district. Root rot and powdery mildew are important diseases, which severely affected this crop. Generally farmers do not use any control measures for its management. So, the evaluation of efficacy of different fungicides in vegetable pea for overcoming the problems. Result showed that Seed treatment (*Trichoderma viridae* @5 gm/kg. seed) and spray of wettable sulphur (3.0 gm./lit.) showed root rot and powdery mildew reduced up to 10% and 17-18% and 16.64% yield increased. Cost benefit ratio of demonstration plot and farmers practice were 2.18:1 and 1.60:1. Details are as follows:

Technology Option	No. of trials	Avg.% incidence		Av. Yield (q/ha)
		Root Rot	Powdery Mildew	
T1-Farmers Practices -No use of pesticides	5	13.6	20.0	64.3
T2- Seed treatment (<i>Trichoderma viridae</i> @ 5 gm/kg. seed) and spray of wettable sulphur (3.0 gm./lit.)		3.34	2.44	77.14

Economics:

Technology Option	Cost of Cultivation (Rs)	Gross Income (Rs)	Net Income (Rs)	B:C
T1-Farmers Practices -No use of pesticides	6000	96,450.0	36,450.0	1.60:1
T2- Seed treatment (<i>Trichoderma viridae</i> @5 gm/kg. seed) and spray of wettable sulphur (3.0 gm./lit.)	3000	115,710.0	62,710.0	2.18:1

Problem definition: Loss in production of banana due to damage of Banana pseudostem by heavy infestation of Banana weevils.

Technology Assessed: Assessment of Biological control approach for the control of Banana weevils. Use of specific strain of NRC Banana - Beauveria Bassiana

KVK, Kaushambi, U.P. conducted OFT (during Rabi - 2020-21) to assess Biological control approach for the management of Banana weevils by use of specific strain of NRC Banana - Beauveria Bassiana.

Technology Option	No. of Trial	% Insect Infestation and percent larval mortality	Yield (Q/ha)	% Increase in yield over farmer's practice
T1-Farmer Practice- No use of effective Management practice (Foliar application of systemic Insecticide Cypermethrin 2 ml/lit. water)	4	After 11 month % of infested plant-45.21 Stem girth(cm)-65	650	-
T2- foliar Application of New strain developed by NRCB of Beauveria Bassiana @ 10 gm/lit of water + Use of New strain developed by NRCB of Beauveria Bassiana trap 30 cm log split pseudostem with 10 g Beauveria Bassiana.		After 11 month % of infested plant-25.21 Stem girth(cm)-75	875	34.62

Observation- Banana is one of the important emerging horticultural crop in the district Kaushambi. However the incidence of pseudostem weevil banana caused heavy yield loss. The On farm Trial resulted that the bio-agent, application of B. bassiana was found to be the most effective in reducing the population of banana stem weevil. Swabbing B. bassiana on the pseudostem at 5, 6 and 7 month after planting showed the best result followed by stem trapping of banana stem weevil swabbed with B.bassiana @ 10ml/trap after planting. There was 74.79 per cent reduction in pseudostem infestation over control at harvest,

Problem definition: Crop failure due to major wilt attack

Technology Assessed or Refined (as the case may be): Integrated wilt disease management in tomato

Tomato is an important commercial crop of Maholi block of Sitapur District. However, there is high incidence wilt disease resulting in yield loss. The technology of Cocopit treatment with *Trichoderma viride* @ 5ml/ litre water and root dipping *Pseudomonas fluorescense* 5 ml/ lit water and soil treatment with *Trichoderma harzianum* @ 5kg/ Ha. It was found that the treatment T1 gives more yield 18.36% and B.C Ratio 1.84 over the control which was 1.60.

Effect of Integrated wilt disease management on Production of Tomato

Technology Option	No. of trials	Incidence of disease (%)	Yield (Tonnes/ha)	% Increase in yield over farmer's practice	Cost of Cultivation (Rs)	Total Return (Rs)	Net Return	B:C Ratio
T0- Farmer's practice : Thiophanate Methyl @ 1kg/ Ha	5	18	324.6	18.36	142326	227220	84894	1: 1.60
T1- Cocopit treatment with <i>Trichoderma viride</i> @ 5ml/ water and root dipping <i>Pseudomonas fluorescense</i> 5 ml/ lit water and soil treatment with <i>Trichoderma harzianum</i> @ 5kg/ Ha		2<	384.2		145540	268940	123400	1: 1.84

Farmers feedback: Nursery and soil treatment is very effective in wilt disease management. *Trichoderma* sp. in combination with *Pseudomonas* sp. giving best results in higher Yield achievement. * Vermicompost in place of cocopit also gives good results.

4.4.4 INTEGRATED CROP MANAGEMENT

Problem definition: Low income

Technology Assessed: Assessment of profitability under intercropping of mustard in Sugarcane.

To assess the performance of intercropping of Mustard in Sugarcane. An On Farm Trial was conducted with two treatments as sugarcane as a sole crop and mustard as intercrop with sugarcane. By this time both crop have been harvested sole crop of Sugarcane gave Rs. 199645 net profit and 3.04 B.C. Ratio while total system of intercropping gave Rs. 262335 net profit with 3.21 B.C ratio. Overall observation system is more profitable.

Performance of Intercropping Sugarcane in Mustard

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross income (Rs)	Net returns (Rs)	BC ratio (Rs)
T ₁ : Farmer Practice (Single crop, Co-238)	06	943.0	--	97400.00	297045.00	199645.0	3.04
T ₂ : Sugarcane(Autumn) + Mustard (RH-749)		1209.0	28.20	118500.00	380835.0	262335.00	3.21

Sale rate of mustard : Rs. 5000/q.

Feed Back: It is expected that the production of mustard will be the extra without any adverse effect on productivity of sugarcane.

Problem definition: Low income through existing cropping system (Rice-Wheat)

Technology Assessed: Assessment of Economic feasibility of short duration Hybrid Rice and its effect on succeeding crops

KVK Kaushambi conducted OFT on economic feasibility of short duration Hybrid Rice and its effect on succeeding crops

Result		Yield (q/ha)	% increase in yield	Gross Cost	Gross Return	Net Return	B:C Ratio
T1- Farmer Practice-Hybrid Paddy (27P37 - Wheat (PBW-343)-Moong (Samrat).	Paddy	58.25		36270.00	107760.00	71492.00	2.97
	Wheat	51.80	-	28890.00	111370.00	82480.00	3.85
	Moong	11.10	-	23600.00	77700.00	54100.00	3.29
T2- Short duration Hybrid Rice (JK-1220)-Early Potato(Khyati)-Late Wheat(K9402)-Moong (IPM 2-3).	Paddy	58.20		36270.00	107670.00	71400.00	2.96
	Potato	186.00		36650.00	186000.00	149350.00	5.04
	Wheat	34.60	-	26800.00	74390.00	47590.00	2.77
	Moong	11.50	-	23750.00	80500.00	56750.00	3.38
	T1- Farmer Practice	121.15		88760.00	296830.00	208070.00	3.34
Total	T2-	290.30	139.62	123470.00	448650.00	325180.00	3.63

Observation- The tested cropping module showed higher crop yield in a unit area in a unit time as compared to exiting cropping system(Rice-Wheat-Moong). The economic analysis of the trail revealed that percentage increase in yield, net return and B:C ratio very much higher than the existing cropping system. The overall employment generation was also higher with tested cropping module due to one more extra crop taken. The farmer also reacted that the money flow takes short spone of time with tested cropping module/sytem as compared to farmer practice/cropping system.

4.4.5 INTEGRATED WEED MANAGEMENT

Problem definition: Heavy infestation of weed in wheat.

Technology Assessed : Weed control measures on wheat in Pilibhit.

KVK Pilibhit took up on-farm trial on chemical weed management in paddy. Variety HD-2967

Effect of Sulfosulfuron 75 WDG + Metsulfuron methyl and Clodinafop propargyl 50 EC + Metsulfuron methyl on weed control and yield of wheat.

Technology Option	No. of trials	No. of weeds/m ²	Yield (q/ha)	Increase in yield (%)	Cost of Input/ha (Rs)	Total return per ha (Rs)	Net Return (Rs./ha)	B:C Ratio
Older weed control measure, Sulfosulfuron 75 WDG + 2, 4-D. (Farmers Practice)	05	56	46.43	--	54761	90539	35778	1.65
Clodinafop propargyl 50 EC + Metsulfuron methyl		13	51.57	11.07	55873	100561	44688	1.80

(Sale Price. Rs 1950/q)

Farmers Reactions & Recommendations: The results indicated that the use of Clodinafop propargyl 50 EC + Metsulfuron methyl gave 11.07 per cent increase in yield over farmer's practice of no use of chemical weed control.

Farmers liked the technology, use of Clodinafop propargyl 50 EC + Metsulfuron methyl for the management of weeds as it increased the yield of wheat significantly by reducing the weeds population.

Problem definition: Low yield of Paddy due to heavy infestation of sedges weeds.

Technology Assessed – To assess the efficacy of new herbicides for management of weeds in paddy

K.V.K., Balrampur conducted On Farm trial on to assess the efficacy of new herbicides for management of weeds in paddy. The results indicated that application of Bispyribac sodium salt 10 EC (Nominee gold) @ 25 gm. ai/ha + Chlorimuron+ Metsulfuron methyl (Almix) 20WP @ 4.0 gmai/ ha at 30 days after transplanting of paddy was given more yield (41.65qt/ha) over T₂& T₁. The less weed count, weed dry weight and more net profit (38827 Rs/ha) and B:C ratio (2.80) were observed in T₃ over T₂& T₁. It is recommended that farmer should applying use of Bispyribac sodium salt 10 EC (Nominee gold) @ 25 gm. ai/ha + Chlorimuron + Metsulfuron methyl (Almix) 20WP @ 4.0 gmai/ ha at 30 days after transplanting of paddy for controlling all type weeds as well as sedges also.

Effect of herbicides on weeds of paddy crops

Technology option	No. of trials	No. of weeds/m ²	Weed dry weight (g/m ²)	Av. Yield (q/ha)	Net profit (Rs)	B:C Ratio
One hand weeding at 30 DAT (FP)	3	28	20.65	32.25	27915	2.48
Use of Bispyribac sodium salt 10 Ec @ 25 gmai/ha (Post- emergence at 30 DAT) (RP)		12	15.16	36.85	32492	2.55
Use of Bispyribac sodium salt 10 EC (Nominee gold) @ 25 gm. ai/ha at 30 DAT + Chlorimuron+ Metsulfuron methyl (Almix) 20WP @ 4.0 gmai/ha (RP)		06	4.87	41.65	38827	2.80

Problem Identified : Low yield of maize due to severe weed infestation and increased cost of production.

Technology Assessed: Assessment of efficacy of Halosulfuron Methyl 75%WP against sedges in Kharif Maize crop

Results reveal that sedges population is quit severe at early stage of crop and ignorance about their effective and timely control reduced yield and economics. Application of Halosulfuron Methyl 75%WP at 30 days after sowing showed their efficacy on sedges after one week with special selectivity against Cyperus spp. The treatment were found beneficial in terms of yield enhancement up to 36.1 % and also supporting DFI .

Effect of herbicides on weed density, yield and economics of Kharif Maize.

Technology Option	No. of trials	No. of Sedges/ m ² at 45 DAS	Visual sedges leaves color	No. of cob/ plant	Yield (q/ha)	Yield increase (%)	Net Return (Rs/ha)	BCR
T ₁ : FP: (Occasional manual weeding)	01	268.4	Full green sedges	1.20	32.7	--	36745	2.54
T ₂ : Halosulfuron Methyl 75% WG @ 90 g/ha as post-em		03	Complete yellows	1.89	44.5	36.1	55345	3.05

Cost of Cultivation Rs./ha T₁ – 23750, T₂- 26980, Sale rate @ Rs. 1850/q

4.4.6 RESOURCE CONSERVATION TECHNOLOGY (RCT) -

Problem definition : Low organic matter in soil due to burning of crop residue & intensive Crop rotation.

Technology assessed : To assessment of organic matter in soil through crop residue management.

No. of Farmers : 10

KVK, Hapur conducted on-farm trials on Crop Residue Management in wheat crop after harvesting of sugarcane through use of Waste decomposer. The problem assessed on the basis of suitable and effective treatment for increasing the organic carbon in soil.

Performance of Waste decomposer

No. of trials	Yield (q/ha.)	Increase in yield (%)	Parameter	% change in Parameter	Cost Cultivation (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
			No. of grains /ear	No. of grains /ear				
10	44.90	-	36.60	-	39033	110310	71277	2.83
	50.70	24.05	44.80	22.40	41575	136830	94855	3.29

Recommendation The maximum grain received in T2 (5.02 t/ha.) followed by over to control T1 (FP) (4.49 t/ha.), in term of percentage the higher than 10.96% over to T2 and 24.05% of local check FP (T1), organic matter increases as well as other soil physical parameter i.e. PH, Ec, Available NPK and increase Growth parameters

Farmers reactions Farmers are convinced the Spray of waste decomposer on crop residue and organic matter increase as well as other soil physical parameter i.e. PH, Ec, Available NPK and increase Growth parameters.

Problem definition: High input cost in paddy cultivation through nursery raising and transplanting.

Technology Assessed: To decrease the input cost in paddy cultivation by DSR (Direct Seeded rice)

KVK Mau has conducted the On Farm Trail for paddy cultivation through DSR (Direct Seeded Rice) with the help of paddy drum seeder / Zero tillage machine, by which the input cost reduced by 24% .

Effect of Paddy drum seeder on yield and income of paddy cultivation

Technology Option	No. of trials	Yield (t/ha)	Gross Cost	Gross Income
Paddy nursery raising and transplanting (Farmers Practice)	05	4.25	35994	65869
Use of Zero tillage machine (Recommended Practice)		4.31	34120	66875
Use of Paddy drum Seeder (Recommended Practice)		4.47	33366	69401
Technology Option		Active Tillers/Sqm ²	Net Returns (Rs./ha)	BC Ratio
Paddy nursery raising and transplanting (Farmers Practice)	05	524	29875	1.83
Use of Zero tillage machine (Recommended Practice)		520	32755	1.96
Use of Paddy drum Seeder (Recommended Practice)		535	36035	2.08

Problem definition: Residue burning of paddy causes environment pollution and ill effect on soil.

Technology assessed: Assessment of *suitable* and economic equipment for crop residues management and sowing of wheat.

KVK Sultanpur II conducted on-farm trial on crop residue management of rice and sowing of wheat under rice-wheat cropping condition through mulcher machine. High residue available in combine harvested rice field and scarcity of CRM machine in the region lower the productivity and profitability of wheat in the existing farmers' practice. On-farm trial conducted with use of mulcher for residue management and sowing of wheat with seed drill resulted in highest B:C ratio of 2.89 and net return (Rs. 61,251.25 per ha) with marginal yield increase of 7.87 per cent as compared with farmers' practice i.e. residue burning fb wheat sowing.

Effect of sowing depth on yield and income of wheat sown by Zero till cum ferti drill machine.

Technology Option	No. of trials	Yield (q/ha)	% increased Yield	Net Returns (Rs/ha)	B:C Ratio
Burning of crop residue of paddy followed by (fb) wheat sowing (Farmers Practice)	6	45.10	-	54417.50	2.68
Use of mulcher for residue management fb wheat sowing (Recommended practice)		48.65	7.87	61251.25	2.89

Problem identified : Burning of crop residue of paddy after combine harvesting for timely sowing of wheat.

Technology Assessed: Use of super seeder for crop residue management of paddy and sowing of wheat after field preparation.

KVK, Gonda (UP) conducted on farm trial to find out the yield performance, after the use of super seeder in combine harvested plot for wheat sowing without burning of paddy crop residue.

Performance of super seeder for sowing of wheat without burning of paddy crop residue.

Technology Option	No. of trials	Yield (Q/ha)	% change in Yield	Parameter	Observations	Net Return (Rs.)	B:C Ratio
Farmer practice- Sowing of wheat after Burning of crop residue of paddy	5	35.48	-	Seed rate(kg./ha.) Germination(days) No. of tiller (no/hill.)	125 8-9 20-25	32186	1.88
Recommended practice- Sowing of wheat with super seeder machine without burning of paddy crop residue..		40.15	13.16	Seed rate(kg./ha.) Germination(days) No. of tiller (no/hill.)	100 6-7 25-30	41875.0	2.17

Farmers Feedback

1. Stop the burning of paddy crop residue.
2. No need of field preparation.
3. Cost saving in field preparation and sowing of seed.
4. Timely sowing of seed.
5. Soil mulching and early germination 2-3 days in comparison to traditional method.
6. More no. of tillers .
7. Increase in average yield.

4.4.7 INTEGRATED FARMING SYSTEM (IFS)

Problem definition: Low income from per unit area with mono cropping

Technology Assessed: Intercropping of cauliflower with banana for increasing income per unit area.

Krishi Vigyan Kendra Kushinagar conducted OFT in year 2020-2021 on effect of intercropping of cauliflower (Kashi Gobhi 25) with banana (G-9) at three (03) numbers selected farmer's field to enhance the total income per unit area of the farmers. Farmers are grown banana as mono-crop usually. The trial result are followed.

Details of Technology	No. of farmers	Average Yield (q/ha.)	Average Gross cost (Rs./ha.)	Average Gross return (Rs./ha.)	Average Net return (Rs./ha.)	B:C Ratio
T ₁ - banana cultivation as mono-cropping (G-9)	03	613.4	212600	479700	267100	2.25:1
T ₂ - Intercropping of cauliflower (Kashi Gobhi 25) with banana (G-9)		Cauliflower - 147.3 + Banana - 590.2	247500	720400	472900	2.91:1

4.4.8 VALUE ADDITION

Problem definition: Original color deterioration of mango powder after long term storage

Technology Assessed: Value addition in mango powder.

KVK Bijnor provided training and practical exposure for preparation of mango powder to 5 farm women. Result indicates that mango powder original colour don't deteriorated till 4 month by scientific method. For preservation potassium meta bisulphide was used hence no blackness in it. Farm women earlier don't use any chemical for preservation.

Technology adopted	Number of farm women	mango powder kg	Total expenditure	Total income	Net income	B:C Ratio
T1- mango powder	01 (05 farmers)	10 Kg	625.00	1500.00	875.00	1.71



Problem definition: Wastage and Low Income from Mushroom Production during Peak Period

Technology Assessed: Preservation and Value addition in Mushroom.

Production of Mushroom is increasing in Bareilly district day by day as the rural youth and self help groups are taking it as an income generating activity. During peak production period price of mushroom goes down and most of the times the material sent to the market comes back without being sold. It causes a heavy loss to young entrepreneurs who find himself helpless under these circumstances. To overcome these problems of wastage and low price in

the market an OFT is conducted with the technology of Directorate of Mushroom Research, Solan, Himachal Pradesh in 10 farm families by making mushroom pickle of 5.00 kg. mushroom and sold out @ Rs. 300 per kg.

Title	Preservation and Value addition in Mushroom.
Problem	Wastage and Low Income from Mushroom Production during Peak Period
Thematic Area	Value Addition
Name & Character of Technology	Value Addition in Mushroom by making Mushroom Pickle
Source of Technology (Year)	ICAR-Directorate of Mushroom Research, Solan, H.P.
Farmers Practice (T ₁)	Sale of Mushroom at very low price and losses due to wastage
Recommended Technique (T ₂)	Mushroom Pickle
No. of Trials (Replication)	10

Results of OFT

Treatment	Production (Kg.)	Gross Cost (Rs.)	Gross Income (Rs.)	Net Income (Rs.)	B:C Ratio
T-1 Farmers Practise (Sale on Low Cost/Threw away)	5.00	250.00	350.00	100.00	1.40
T-2 Making Mushroom Pickle	4.75	750.00	1425.00	675.00	1.90

Farmers Reaction: Farmers observed that their mushroom after coming back from the market is of no value because it is very perishable in nature but making pickle of mushroom provided them opportunity to preserve it for a longer period of time as well as some extra income.

4.4.9 LIVESTOCK

Problem definition : Infertility in Buffalo.

Technology assessed : Evaluation of different feed supplement to check the infertility in milch animals.

No. of Farmers : 05

KVK, Hapur conducted on-farm trial on different feed supplement to check the infertility in milch animals.

Technology Option	No. of trials	Milk prod. (lit./day)	Increase in milk prod. (%)	Lactation period in days	Gross Cost (Rs.)	Gross Return (Rs.)	Net Return (Rs./ha)	B:C Ratio
T ₁ - Farmers practice (Use of common salt)	05	12 lit.	-	180 (6 months)	54000	97200	43200	1.8
T ₂ - Dewormer + Mineral mixture + Albomar + Fertilisule		13.5 lit.	13.67%	210 (7 months)	67830	129182	61352	1.9

Recommendation

T₂ - groups of buffaloes were much health due to the used mineral mixture, dewormer & fertilisule as compared to T₁ - group of buffaloes were improved milk production as compared to T₁ - group of buffaloes.

Farmers reactions

Farmers agree that improvement of milk production on buffaloes through the trial conducted to find as T₂ - treatment used mineral mixture dewormer & fertilisule were helpful to increase milk production & more conception rate compared to T₁ treatment of buffaloes.

Date of Distribution

19 Aug. 2021

Problem definition: Low fish production due to no use of micro nutrients in supplementary fish feed

Technology Assessed : To assess the effectiveness of micro-nutrients in fish feed

KVK, Balrampur conducted On Farm trial on to assess the effectiveness of micro-nutrients in fish feed. The results indicated that maximum body weight gain (0.88kg/year), yield (17.30qt/ha), net profit (Rs. 110350/ha) and benefit cost ratio (2.04) were observed in use of micro-nutrients in fish feed @ 2% over farmer practice. The fish farmers are much interested to use of micro-nutrients in fish feed due to it provides maximum yield and profit.

Effect of micro-nutrients in fish feed.

Technology option	No. of trials	Av. Body weight gain (kg)	Yield (q/ha)	Net profit (Rs./ha)	BC R
No use of micro-nutrients in fish feed (Farmer's practice)-T ₁	3	0.56	16.80	70000	1.25
Use of mineral mixture @ 2% in fish feed (Recommended practice)-T ₂		0.88	17.30	110350	2.04

Problem definition: Assessment of probiotics on milk yield and conception rate in buffaloes

Technology Assessed: Assessment of suitable Probiotics for buffaloes

KVK Pilkhi, Mau conducted trial on suitable probiotics in buffaloes for higher milk yield and conception rate. The result indicate that probiotics bolus feeding per day increase 12.00% milk and conception rate 65% was found in comparison to FP and biotic feeding. Physical appearance, milk yield and conception rate of probiotic feeding was found higher than F.P.

Effect of probiotic on milk yield and conception rate in buffaloes

Technology Option	No. of trial/ animals	No. of animal	Starting milk yield (lt.) per day/animal	Milk yield during trial (lt.)per day/animal	Milk increased (%)	Conception Rate (%)
Gur feeding (Farmers practice)	5	5	7.0	7.5	7.14	28
Probiotic(bacteria base with vitamin and trace minerals) (Recommended practice)		5	7.5	8.40	12.00	65

Problem definition: High problem of poor and delayed conception of female Barbri goats

Technology Assessed: Assessment of minerals supplementation and de-worming in Barbari goat for improvements of fertility.

Minerals deficiency due to imbalance feeding and lead of internal parasites infection resulting poor and delayed conception 2-3 months after kidding in Barbari goats . KVK Ambedkar Nagar conducted trial on Assessment of minerals supplementation and de-worming in goat for improvements of fertility .In recommended practice supplementation of minerals mixture @15 gm with 150 gm balance concentrate /day& 3ml. Albendazole de-wormer, resulting increased conception rate 83.33 percent within month.

Effect of supplementation of minerals mixture and de-worming on conception rate in Barbari goats

Technology Option	No. of trials	No. of animals	No. of animals conceived within month	Per cent conception
Only grazing to goats (Farmers practice)	3	6	2	33.33
Use minerals mixture @15 gm with 150 gm balance concentrate /day& 3ml. Albedazole de-wormer (Recommended practice)		6	5	83.33

Result: Supplementation of minerals mixture @15 gm with 150 gm balance concentrate /day& 3ml. Albedazole de- wormer, resulting increased conception rate 83.33 percent within month.

Problem definition: Reduce net profit due to CRD disease of broiler in rainy season

Technology Assessed: Assessment of Amoxicillin Antibiotics in the feed of broiler.

Krishi Vigyan Kendra, Sohna, Siddharthnagar conducted on farm trial to find out the suitable technology for getting higher net profit from broiler farming. For control of CRD disease Amoxicillin antibiotic added 10 mg /kg body weight at 17, 18 & 19 days and liver tonic 20 ml/ 100 chicks. The recommended technology recorded 20.48 percent higher yield over farmer practice.

Effect of Amoxicillin Antibiotics on broilers

Technology	No. of trial	No. of chicks	Mortality %	Av. weight at 45 days (kg)	% increase over FP	BCR
T ₁ =No use of proper antibiotic (FP)	5	200	12	2.10	-	1.34
T ₂ = Amoxicillin Antibiotics 10 mg /kg body weight at 17, 18 & 19 days and liver tonic 20 ml/ 100 chicks	5	200	4	2.53	20.48	1.57

Problem definition: Reduced rate of Milk production in Buffaloes.

Technology Assessed: To assesses the effect of symbiotic on reduced rate of Milk production in Buffaloes.

Buffalo and ruminants have unique ability of utilizing lingo-cellulolic feeds as the major component of their diet for getting energy for their survival and for the production. These jobs are accomplished in rumen by a complex consortium of rumen microbes. This microbial ecosystem consists of bacteria, protozoa, fungi and geiophabacteetc . The population and ratio of microbobiaes influenced by antimicrobial substances and poor management which disturb digestibility of animal ultimately affect the milk production, The following result have found after conducted a trial on above problem:-

Technology Option	No. of trials	No. of animals (Buffaloes)	Av. Milk Yield Lit/day/ Buffalo	Estrous Response	Gross Cost(Rs)/ day/animal	Gross Return (Rs.) /day/ animal	Net Return (Rs.) /day/ animal	BCR
T1 : Farmer Practice (No use of microbial feed supplements after longer use of antibiotics and poor digestibility)	20	20	3.10	2	107	142	35	1.33
T2: Recommended practice (Use of synbiotics @ 15 g per day for 8 days)			3.64	6	113	196	83	1.73

* Average market value of non pregnant cross bred cow is Rs. 13000/ cow

* Average market value of pregnant cross bred cow is Rs. 25000/ cow

* Milk rate Rs 45/ lit *Trial Period – 90 days

Problem definition: Less body weight gain in goats.

Technology Assessed: To assess the efficacy of protein and micronutrients based supplement on body weight of goats.

The goats are generally reared by poor farmers and they not providing good quality of feed and fodders resulted unbalancing of nutrients especially protein and micronutrients which create sub-acute and chronic metabolic disorders interfering with optimum production and weight gain of goats. The following results have found after conducted a trial on above problem.

Technology Option	No. of trials	No. of animals (Goats)	Av. Body weight (kg/goat)	% increase in body weight	Incidence of diseases	Gross Cost (Rs./day/Goat)	Gross Return (Rs./day/Goat)	Net Return (Rs./day/goat)	BCR
T1 : (Farmer Practice) Use only choker, rice bran, straw and small quantity of green fodder resulted lack of protein and micronutrients	10	10	12.5	-	2	35	56	21	1.60
T2: (Recommended practice) Use of essential amino acids based protein and micro nutrients @ 10ml/day/goat with farmers ration			16.8	34.4	0	39	75	36	1.90

* Rate of live weight of goat: Rs. 400/kg * Average age: 90days

Problem definition: Higher incidences of post-calving anoestrous

Technology Assessed: Evaluation of clinical and non-clinical treatment for post-calving anoestrous in Buffaloes.

The trials were conducted during Dec. 2020 & July 2021 (03 trials in Rabi & Kharif Season) on 03 repeat breeders buffaloes (buffaloes did not show oestrus between second to fourth lactation after 3-4 months of calving) at three locations village wise, to evaluate the remedial measures for curing post calving anoestrus. In treatment one i.e.T1 which is farmers practice (feeding of choker & common salt), Even single buffalo did not responded or conceived. In the treatment T2 i.e. nonclinical remedies (Vetmate (Gonadotrophic hormone) inj 2 ml (72 hrs before AI) and feeding of minerals mixture@ 50gm/day/animal up to 45 days) three buffalo responded. Each and every animal should be free from ecto and endo parasites using ivermectin injection @ 01 ml for 50 kg body weight.

Effect of minerals mixture+ Vetmatecure/minimize the post-calving anoestrous (RABI 2020-21)

Technology Option	No. of trials	Post calving anoestrous (Buffaloes)	
		Number	%
T 1 -Farmer's practice (Use of choker and common salt)	3	03	100
T2- Use of Vetmate (Gonadotrophic hormone) inj 2 ml (72 hrs before AI) after 45 days of calving + Mineral mixture supplementation @ 50 g/day /animal for 45 days		0	(Rate of Success is 100%)

Effect of minerals mixture+ Vetmate cure/minimize the post-calving anoestrous (KHARIF 2021)

Technology Option	No. of trials	Post calving anoestrous (Buffaloes)	
		Number	%
T 1 -Farmer's practice (Use of choker and common salt)		03	100

T2- Use of Vetmate (Gonadotrophic hormone) inj 2 ml (72 hrs before AI) after 45 days of calving + Mineral mixture supplementation @ 50 g/day /animal for 45 days	3	01	(Rate of Success is 67%)
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Problem definition: Low yield of fishes under polyculture system

Technology Assessed: Culture of Jayanti Rohu with catla and Mrigal at farmers field

KVK, Chitrakoot conducted on farm trial to get higher yield and growth in community ponds. The improved breed of Jayanti rohu stocked with catla and mrigal and growth is to be assessed on quarterly basis.

Performance of Technology-

Treatments	No. of farmers	Weight at stocking	Stocking density	Yield (Kg/h)	Gross exp. (Rs/h)	Gross income (Rs/ha)	% Increase	B:C ratio
Catla, Rohu, Nain (T-1)	04	1.2 gm	10000 /ha	1239.85	38200	61992.25	--	1.62
Catla, Jayanti Rohu, Nain (T-2)		2.5 gm		1489.65	38200	78217.5	20.12	2.05

Results- The result of OFT shows that the yield was 20.12% higher than farmers practice with traditional rohu. The gross income was Rs. 16225.25 more than T-1.

Feedback- Individual growth of jayanti is 115.1% higher than traditional ones in 8 month culture period

Impact and conclusion: Farmers demanding jayanti seed and KVK planned to produce 10 lakhs seed for farmers to get more income.

Problem - Low milk yield infertility and low income through milk production.

Technology Assessed - To assess and evaluate the Azolla feeding as green feed supplement and influenced the milk production.

KVK, Kaushambi conducted trial to assess and evaluate the Azolla feeding as green feed supplement, influenced the milk production and clinically good sign of heat for dairy animals. For that KVK selected farmers and made 8 x 6 feet pit for Azolla cultivation. As per input 2 kg Azolla culture, polythene and 2kg SSP given for trial.

Treatment	No. of Animals	Parameters Taken	% increase	Gross Cost	Gross Income	Net Income	B:C
T-1 No specific green feed supplement used	10	Avg. Milk production= 7lt/d Gross production= 32800 lt Sold milk rate= Rs 27	Milk Production = 18.60% Natural heat incidence at field level =30-40% Physical body score +3	32800	167400	134600	5.1
T-2 Azolla green feed supplement taken (100-200 gm/day) for better health, production and physical traits for dairy animals	10	Avg. Milk production=8.6lt/d Gross production= 34400 lt Sold milk rate= 27		34400	207000	172600	6.0

Observation- Azolla is rich in protein essential amino acids, vitamins (vitamin A, Vitamin B12 and beta carotene), mineral calcium phosphorus, potassium, iron, copper, magnesium and is also helpful in animal health and body development. On the basis of dry weight. It contains 2530% protein. 10-15% minerals and 7-10 amino acids, bioactive substances and bio-polymers. Livestock can easily digest it due to its high protein and low lignin content. Azolla can be

mixed with livestock feed or given directly. This lowest cost green fodder for dairy animals will be available near your dairy farm throughout the year. The animals will be healthy, the cost of milk production will be low and the milk yield will be high. Animal will be profitable.

4.4.10 DRUDGERY REDUCTION

Problem definition: High drudgery and low efficiency of farm women during cleaning of wheat by traditional sieve

Technology Assessed: Assessment of hanging Sieve for drudgery reduction and efficiency enhancement of farm women

Women are a vital part of their family, district as well as Indian economy. Over the years, there is a gradual realization of the key role of women in agricultural development and their vital contribution in the field of agriculture, Aside from raising children, women are expected to work in kitchen, maintain the homestead and assist in crop and animal production, 48 per cent of India's self-employed farmers are women, Drudgery can be defined by its time-consuming, repetitive and arduous nature, Pain is the indicator of discomfort. The perceived discomfort was recorded in terms of pain felt in different parts of body. For many traditional postharvest activities like threshing and winnowing, can be described as drudgery. Cleaning grains manually, use human energy in two ways: they are arduous and time-consuming. Reducing drudgery in difficult activities is more important than saving time. For instance, women often prefer doing activities in standing position as it helps them in moving around.

Technical Observation	Farmers Practice	Hanging Sieve	Percentage Increase
Quantity cleaned(kg/Hr)	57 Kg	121 kg	24.1
Heart Rate -at rest	72	72	17
(after one hr cleaning)	90	78	
Energy Expenditure (0.15xHR-8.72)	0.15x90-8.72=4.78	0.15x78-8.72=2.68	1.8 times more Energy Expenditure in framers practice
Frequency of Postural change	4-5 times	--	

Farmers Reaction :

1. Easy in use
2. Time saving /time efficient
3. Less Fatigue
4. 100 percent Women liked hanging sieve over hand sieve, as maximum work output was observed by using the hanging grain cleaner.

4.4.11 FARM MACHINERY

Problem definition: Low yield of wheat due to late sowing after paddy harvesting.

Technology Assessed: Sowing through happy seeders after harvesting of paddy

Effect of various sowing methods on yield of wheat

Technology Option	No. of trials	Yield (qt/ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T ₁ -Farmer's practice-Broadcasting after harrowing	04	48.0	-	32800.00	1.49
T ₂ -Sowing through seed drill after one harrowing		54.8	14.16	43880.00	1.65
T ₃ -Sowing through happy seeder after harvesting of paddy.		52.0	8.33	38700.00	1.57

4.4.12 HOUSEHOLD FOOD SECURITY

Problem definition: Nutrient inadequacy

Technology Assessed: Assessment of role of SHG for income generation through preparation from different pulses and vegetable Badi.

Preparation of Badi were assessed at different locations in comparison to often in practice. Badi with pulses & vegetable + spices was found better in respect of local practice. Badi with pulses & vegetable is more nutritional property, tasty, more self life and also add additional income.

Performance

Technology Option	No. of trials	Yield (kg)	Increase in yield (%)	Performance indicators		Cost of cultivation (Rs)	Gross return (Rs)	Net Profit (Rs)	B:C Ratio
				Indicator	Performance				
T ₁ - Farmer practice - Preparation of Badi from few pulses	10	1.5	--	Nutritive value	Rich in protein & minerals	110	225.0	115.0	2.0
T ₂ - Preparation of Badi from different type of pulses and vegetables.		1.5	-	Self life	Better keeping quality	135.0	375.0	240.0	2.7
				Sale opportunity	Income Generating				

Feedback: Remarkable acceptance of Badi due to readily availability, more nutritional property and help in income generation.

Problem definition: Low nutritional status/ malnutrition among farm women

Technology assessed: Supplementation of fortified wheat flour/ multigrain flour (wheat flour 75% + grain flour 20% + Barley flour 5%) for 180 days. It has been found that majority of farm women have been suffering from iron deficiency and they have been complaining general health problem (fatigue back ache, head ache). KVK Baghatpat conducted trial by assessment of effective supplementation of fortified wheat flour for improvement of nutritional status of farm women by providing / multigrain flour [wheat flour 75% + grain flour 20% + Barley flour 5%] for 180 days (T₁) against consumption of 100% wheat flour (T₂) as their staple diet. Result revealed that their Hb level has been increased from 10 (T₁) to 11.50 (T₂), similarly their BMI has been found increased from 20.80 (T₁) to 21.00 (T₂).

Technology option	No. of trial	Quantity (gm/day)	Duration (Days)	Hb level		Perceived rate of exertion tiredness			Height	weight	BMI
				Pre	Post	Low	Mid	High			
Consumption of wheat flour only (T ₁)	03	350	180	10	-	Low	-	-	5'4"	56	20.8
Fortification of locally available grains [75% wheat + 20% gram+5% barley] (T ₂)		350	180	-	11.5	-	-	High	5'4"	58	21

4.4.13 INTEGRATED CROP MANAGEMENT

Problem definition:- Low and less profitability of paddy-wheat based cropping system of small farmers of district Balrampur

Technology Assessed: To assess income of small farmers through suitable cropping system

KVK, Balrampur conducted On Farm trial on to assess income of small farmers through suitable cropping system. The results showed that maximum yield of paddy (29.46 qt/ha) & wheat (29.93 qt/ha) were found in T2 over farmer practice. When farmers grow short duration variety of paddy, they also grow the Radish crop as a rotational crop and obtained net profit of Rs. 28300/ ha as a additional income It is recommended that farmers should grow short duration Paddy variety (Sahabhazi), Radish (Japani safed) & Wheat as a cropping system they will obtain more yield and profit in per unit area.

Farming System

Technology option	No. of trials		No. of Plant /m ²	Av. Yield (qt/ha)	Net profit (Rs.)	B:C Ratio	
Farmer's Practice (Sowing of medium duration (135-140 days) variety of paddy-wheat) -T ₁	3	Paddy	257	25.40	15390	1.8	
		Wheat	276	25.30	30903	2.7	
Short duration paddy variety (Sahabhazi)- Radish (Japani safed)- Wheat-T ₂		Paddy	278	29.46	20871	2.1	
		Radish	08	234	28300	2.5	
		Wheat	297	29.93	39816	3.2	

Problem- Assessment of performance of intercropping in Mango orchard

Title- Mismanaged Mango orchards with no intercropping

Treatments- T1- No intercropping (only Mango), T2- Intercropping of Turmeric with row to row distance 45 cm and plant to plant distance 25 cm

Number of farmers: 05 **Source of Technology:** ANDUAT, Kumarganj, Ayodhya

Year	Treatments	Crop	Yield (q/ha)	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net return (Rs./ha.)	BCR
Kharif 2020	T1: Mango orchard (10x10m)	Mango	100	100000	200000	100000	1:2
	T2: Mango orchard+ turmeric (plant to plant 25 and row to row 45 cm)	Turmeric	200	40000	400000	360000	1:4.5
		Mango	92.8	90000	125000	95600	
		Turmeric + Mango	292.8	130000	525000	455600	

Note: Yield, net returns/ha and B:C was higher in case of use of intercropping of Turmeric in Mango orchard in comparison to monocrop

Problem Definition: - The land of mango orchard is not utilized so income is limited. (Bhadohi)

Technology Assessed or Refined: Intercropping of turmeric in established mango orchard after center cropping.

Result: An OFT was conducted at 05 farmers fields in mango orchard after centre opening. The turmeric variety Megha was shown in month of April. At the time of harvesting yield was recorded 164.7 q/ha and net income was Rs. 173600 / ha as additional income after the new intervention of intercropping in mango orchard. Where as farmer practices they using orchard for mango production.

Performance of Turmeric as inter crop in mango

Technology	No. of trials	Yield q/ha	Cost of Cultivation	Gross Income	Net Income	B.C. Ratio
T-1 Mango (Langra)	5	95.0	38000	237500	199500	6.25
T-2Mango (Langra)		118.3	40800	295750	254950	7.25
+ Turmeric (Megha)		164.7	73450	247050	173600	3.36

TECHNOLOGY ASSESSMENT



OFT on Paddy: KVK Hardoi-Ic



OFT Groundnut machine: KVK unnao



OFT on Kharif Onion: KVK Hamirpur



OFT on Pusa Decomposer: KVK Hamirpur



OFT on Sugarcane : KVK Muzaffarnagar-I



OFT on wheat: KVK Chandauli



OFT on Banana: KVK Deoria



OFT on Nano Urea: KVK Gorakhpur-I

Chapter-5

EXTENSION PROGRAMMES

Extension programs are one of the important mandated activities to be carried out by the KVKs of Uttar Pradesh. In all 50272 extension activities with 13.10 lakh beneficiaries, 37240 mass communication extension activities, 123468 mobile advisories through text and voice for 34.68 lakh farmers, 25951 soil samples covering 38649 farmers, 4439 technology week celebrations with 2.95 lakh beneficiaries, 228 trainings and demonstrations under rain water harvesting & micro irrigation system with 20886 beneficiaries have been reported. Total 81 SACs have been conducted by 81 KVKs with 1625 participants, 2850 personnel benefitted under technology backstopping by DEs and 32748 farmers have been benefitted by ATIC centres in this Zone. (Table-5.1)

Table-5.1: Physical achievement of extension programmes

S.No.	Programmes	Number	Beneficiaries
1	Extension activities	50272	1307070
2	Other extension programs(mass communication)	37240	mass
3	Mobile advisories	123468	3467967
4	Soil samples	25951	38649
5	Technology week celebrations	4439	295035
6	Trainings and Demonstrations under Rain Water Harvesting & Micro Irrigation System	228	20886
7	SACs	81	1625
8	Technology backstopping by DEs	12	2850
9	ATIC	15	32748

5.1 Extension Activities

A large number of extension activities (50272) were organized for 1307070 farmers and extension personnel by KVKs of Uttar Pradesh. The major activities like advisory service (20020), diagnostic visits (5134), field days (787), group discussions (819), kisan gosthies (1659) film shows (623), self help groups (406), kisan mela (405), exhibitions (251), scientist visit (8853), plant/animal health camps (262), farm science clubs (71), ex-trainees meet (115), farmers' seminars (247), method demonstrations (557), celebrations of important days (460), special days celebration (514), exposure visits (756) with the participation of 1264124 farmers and 42946 extension personnel were benefitted. (Table-5.2)

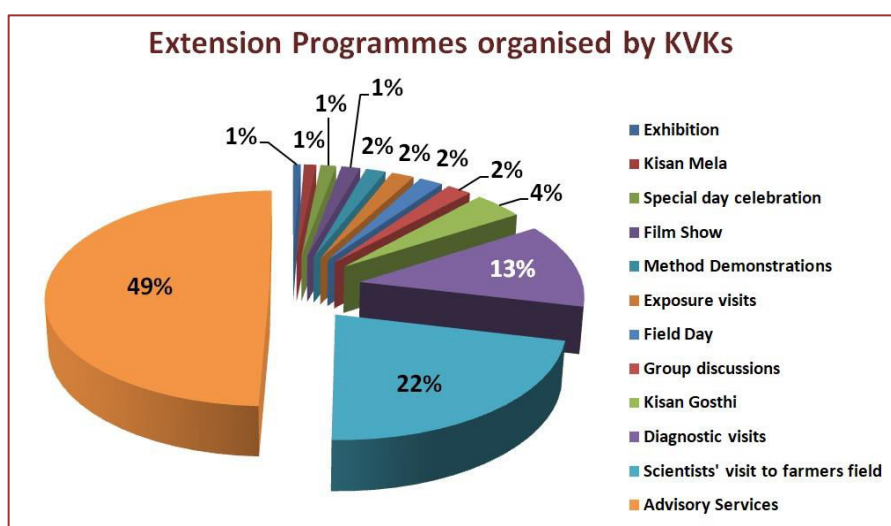
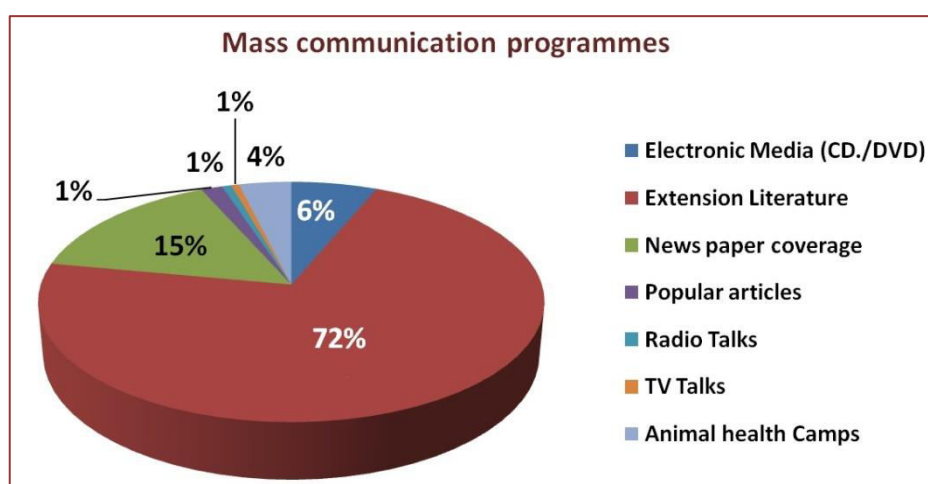


Table-5.2: Extension activities conducted in KVKs of Uttar Pradesh

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	Total	No of KVKs
Advisory Services	20,020	1,95,081	6,165	201246	82
Diagnostic visits	5,134	31,927	1,519	33446	76
Field Day	787	29,722	1,195	30917	75
Group discussions	819	17,762	746	18508	71
Kisan Gosthi	1,659	1,53,781	7,298	161079	73
Film Show	623	27,093	1,501	28594	64
Self Help Groups	406	16,539	838	17377	54
Kisan Mela	405	1,95,023	6,707	201730	72
Exhibition	251	1,19,180	3,348	122528	67
Scientists' visit to farmers field	8,853	66,181	2,088	68269	76
Plant/animal health camps	262	23,447	710	24157	60
Farm Science Club	71	2,637	85	2722	46
Ex-trainees Sammelan	115	78,408	400	78808	48
Farmers' seminar/workshop	247	18,837	804	19641	58
Method Demonstrations	657	11,433	446	11879	60
Celebration of important days	460	51,401	1,738	53139	74
Special day celebration	514	53,227	1,623	54850	72
Exposure visits	756	13,471	571	14042	72
Others	8,233	1,58,974	5,164	164138	63
Total	50272	1264124	42946	1307070	89

5.2 Other Extension activities



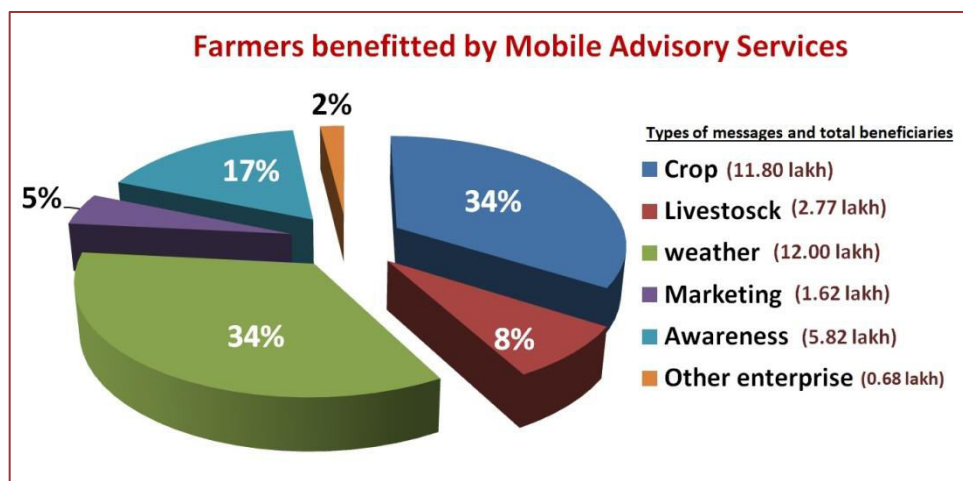
KVK of Uttar Pradesh has also organized other extension activities (37240) also. The major activities like electronic media (2298), extension literature (26022), news paper coverage (5604), popular articles (566), radio talks (253), and TV talks (198), health camps (1397) were performed.

S. No.	Particulars	Number	No. of KVKs
1	Electronic Media (CD./DVD)	2298	44
2	Extension Literature	26022	65
3	News paper coverage	5604	78
4	Popular articles	566	65

5	Radio Talks	253	57
6	TV Talks	198	55
7	Animal health amps (No. of animals treated)	1397	45
8	Others	902	46
Total		37240	89

5.3 Mobile Advisory Services

Kisan Mobile advisory services were given by KVKs with 61148 text messages, 22972 voice messages and 39348 text including voice to 3467967 farmers. Advisories under different type of messages were delivered to all registered farmers.



By sending text and voice messages by mobile has enabled the KVKs to reach the unreached farmers in distant and remotely located areas. (Table-5.3)

Table-5.3: Physical achievement of Kisan Mobile Advisory Services provided to farmers

Type of messages	No. of Text messages sent	No. of voice messages sent	no. of Text+Voice messages sent both	No. of farmers benefitted
Crop	23511	11668	12077	1179751
Livestock	5283	2445	5290	276512
weather	5544	1655	9957	1200326
Marketing	2037	1256	3062	161904
Awareness	20110	4071	7604	581629
Other enterprise	4663	1877	1358	67845
Total	61148	22972	39348	3467967

5.4 Other Extension Programmes

5.4.1 Soil samples analysis

In all, 25951 samples of soils, water plant, manures and others were analyzed by 65 KVKs. Those samples were collected from 5868 villages and 38649 farmers' fields in Uttar Pradesh.

5.4.2 Scientific Advisory Committee Meetings (SACs)

Total 81 Scientific Advisory Committee meetings were organized by all KVKs in U.P. It is one of the important platform to obtain the suggestions from different stakeholders towards designing realistic action plan of KVKs. Participatory planning is the main feature of KVK system for enhancing crop production and productivity towards fulfilling the needs of the farmers.

5.4.3 Technology week celebrations

In Uttar Pradesh, 4439 activities were organized by KVKs by benefiting 295035 farmers. The main activities involved in this program are distribution seeds, bio-fertilizers and bio-products to farmers and other activities like goshies, lectures, exhibition, film show, Fair, farm visits, diagnostic practicals, distribution of literature, distribution of planting materials, distribution of fingerlings and distribution of livestock specimen.

5.5.4 Rain water harvesting & micro irrigation system

In total, 52 trainings and 176 demonstrations were conducted and 20624 farmers and 262 officials visited the system also 71873 plant material produced under the zone in context to rain water harvesting and micro irrigation system.

5.5.5 Technology backstopping by Directors of Extension

Technology backstopping is the process of making available ready to use technologies for farm families through assessment, refinement and demonstration processes in order to combat the existing/forecasted technology fatigue. In this connection, Directors of Extension from four SAUs provided or share their experiences to KVKs by following activities –

- (i) Visits : SAC (45), field days (29), workshop/seminar (79), technology week (33) and training programmes (45)
- (ii) Overseeing of KVK activities: OFT (31), FLD (39), others (12)
- (iii) Technology product (q) provided to KVKs: Seeds (619), bio-products (4)
- (iv) Updating Technology inventory : 15

5.5.6 ATIC (Agricultural Technology Information Centre)

It is a better interaction between researcher and technology users. This serves as a single window system with an objective to help the farmers and other stakeholders both to provide solution to their location specific problems and make available all the technological information along with technology inputs and products for testing and use by them. In this zone, there are four ATIC centres and achieved the followings –

- (i) About 32748 farmers visited to ATIC centre and availed the facilities like exhibition, technology museum, touch screen kiosk, cafeteria, sales counter and noted their feed back in the register
- (ii) Total 32600 technology information provided by Kisan call centres, video shows, etc
- (iii) Total 14673 publications are distributed
- (iv) Technology products like seed (2613.22 q), planting materials (7.2 lakh) and bio-product (190 q) are provided to farming community
- (v) Technology services like soil & water testing (4617), plant diagnostics (2516), services to line departments (15945), and 1912 also provided to farmers and others.

EXTENSION ACTIVITIES



Visit of CM Uttar Pradesh Shri Yogi Adityanath : KVK Ghaziabad



Visit of DDG (AE) in Kisan Mela : KVK Chandauli



Celebration of Independent Day: KVK Banda



Visit of MOA, Res. & Education Shri Surya Pratap Shahi in kisan mela: KVK Banda



Celebration of World Food Day: KVK Banda



SAC meeting organised at KVK Kasganj



Visit of VC SVPUAT, Meerut in kisan mela at KVK Ghaziabad



Celebration of Kisan Samman Divas: KVK Fatehpur

EXTENSION ACTIVITIES



Celebration of parthenium awareness week:
KVK Jalaun



Awareness campaign for Covid vaccination : KVK
Hapur



Plantation campaign: KVK Jhansi



Pashu campaign : KVK Bhadohi



Celebration of World Soil Day: KVK Gorakhpur-II



Field Day (Torja): KVK Firozabad



Kisan Samman Diwas: KVK Hathrus



Distribution of seeds under CFLD programme:
KVK Jhansi

EXTENSION ACTIVITIES



Mahila Kisan Diwas: KVK Chandauli



Organisation of Mahila Kisan Diwas: KVK Ghazipur



VC Banda monitoring vermi compost unit of KVK Jalaun



Visit of KVK Firozabad by ATARI officials



Animal Health Camp: KVK Banda



Visit of ATARI officials at KVK Gorakhpur-I



Diagnostic visit by SMSs of KVK Hamirpur



Celebration of Mahila Kisan Diwas : KVK Bareilly

Chapter-6

SEED & PLANTING MATERIAL PRODUCTION

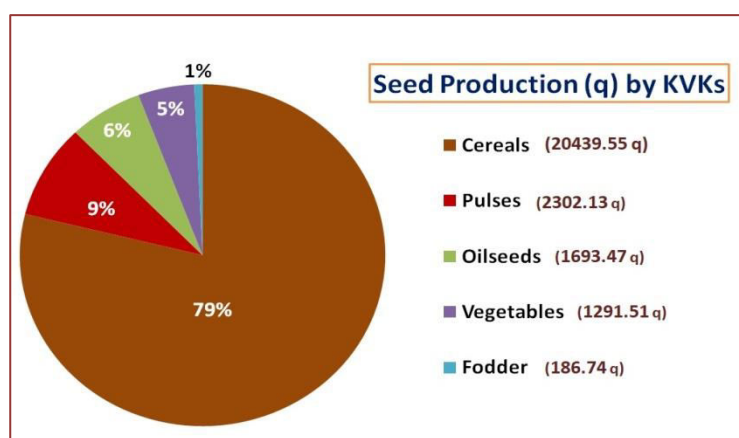
KVKs of Uttar Pradesh has given emphasis on production of seeds/seedlings/livestock strains/bio products etc, which are important and suitable for the district by ensuring quality of technological products produced at their instructional farm using revolving fund and supplier to the farmers for large scale promotion of quality seed/planting material. Enterprise wise total production of seed (25984.15 q), planting material (80.88 lakh), bio-product (3660.13q) and livestock strain (212.54 lakh) are shown as below Table-6.1.

Table-6.1: Seed, planting material, bio-product and livestock strain production at a glance

Production type	Quantity	Value in lakh	Distributed to no. of farmers
Seed Production (q)	25984.15	750.21	38833
Planting material production (Lakh)	80.88	104.74	60765
Bio-product production (q)	3660.13	34.98	6799
Livestock strain (Lakh)	212.54	81.88	3040

6.1 SEED PRODUCTION

Seed production is one of the important activity of KVKs. They undertake quality seed production which may play a greater role in enhancing production and productivity of different crops. During the year 2021, KVKs of Uttar Pradesh produced 25984.15 q seed of cereals (20439.55 q), pulses (2302.13 q), oilseeds (1693.47 q), vegetables (1291.51 q), fodder (186.74 q), spices (54.80 q) and commercial crops (15.95 q).

**Table-6.2: Enterprise wise physical achievement of seed production (U.P.)**

Enterprise	Quantity (q)	Value (Rs. in lakh)	Distributed to farmers	No. of KVKs
Cereals	20439.55	495.82	11071	63
Pulses	2302.13	187.14	22448	31
Oilseeds	1693.47	58.64	4742	10
Vegetables	1291.51	3.08	160	2
Fodder	186.74	3.50	186	4
Spices	54.80	1.63	138	1
Commercial	15.95	0.48	133	65
Total	25984.15	750.29	38878	-

6.1.1 Cereals

The KVKs produced 20439.55 q of seeds of cereals as per details given in Table 6.3. The seed of important cereal crops produced included the crop like paddy (6904.93 q), wheat (11551.72 q), jowar (1847.48 q), barley (38.68 q), maize (73.34 q), etc. The important wheat varieties included K-1006,

PBW 107, K-402, Raj 4120, K-7903, HD-3086, HD-2967, DBW-39, K 1317, H.D-3090, Mandakini, PBW 502, HD-2643, PBW 343, PBW 154, HUW-234, DBW 17, PBW 550, UP 2382, NW-2036, KRL-210, Mahi, Unnat Halna-(K-9423) etc. Important varieties of paddy in seed production programme included JKRH-401, Sava – 127, PR 113, NDR-359, BPT 5204, PB-1509, NDR-2065, Pusa Basmati-1121, Pant Ballabh Dhan -1, HUR-917, HUR-105, Sahbhagi, HUBR 2-14, Shusk Samrat, HUBR 4-3, Sarju-52, Damnni, Mahsuri, Old Kalanamak, DRR 44, DRH-775, Sambha Sub 1, CSR-46, CSR-36, Pusa-2511, PR-113, NDR-3112, AZ 6444 Gold, BH – 21, PB-1121, BH -21, PB 1637 etc. The other crop varieties included; Barley- Mahamana-113 (HUB-113), Maize - DKC-9144, Azad Uttam, African tall, Bio 9544, HQPM-1. The detailed crop wise data is given in Table-6.3.

6.1.2 Pulses

The total quantity of pulses seed production was 2302.13 q. The important pulse crops like Field pea (886.52), Chick pea (678.5), Lentil (353.90), Pigeon pea (181.53), Urdbean (115.98), Moongbean (76.56) and Rajmash (7.14) etc were taken up under seed production programme. The important varieties of pulses selected for seed production were chick pea (JG-14, RVG-202, GNG-1581, RVG-203, Ujjwal, Udaí, DCP 92-3, Avarodhi, Radhey, Pant Chana -1); pigeon pea (TJT – 501, Prakash - IPA 203, N.A-2, Bahar, Mal 13, IPA-203, Pant-291); field pea (Prakash, Aman, IPFD 10-12, Rachna, Pusa Prabhat, IPFD 4-9, Aman; lentil - KLB 320, IPL-316, IPL-81, HUL-57, PL 406, DPL 62, K-75, PL 406, PL-08, , Pusa Masoor Ageti); urd bean (Shekhar-2 & 3, IPU 2-43, PU-40, PU 35) and mungbean (Virat, IPM 2-3, IPM 2-14, HUM-16, PU 36, Narendra Moong-1). Details are given in Table-6.3.

6.1.3 Oilseeds

The KVKs of the zone produced seed 1693.47 quintals of oilseeds. The important oilseed crops like Mustard (988.49), Sesum (387.47), Groundnut (84.32), Linseed (225.87), Toria (2.50), etc were taken up under seed production programme. The important varieties of mustard selected for seed production were Pitambari, RH-749, RH 406, Pusa Tarak, Varuna, PM 30, Pusa Vijay, CS 56, Bayer Mustard 5210, RH 406, NRCHB-101, YSH-0401, PYS-1 etc; Toria- Bhawani, Tapeswari, Uttara, etc; Til- Pragati, Mau Azad-1, R.T-351, SHEKHAR, RT351, Tarun etc; linseed- Padmini, LMS 9-2 etc.

6.1.4 Vegetables

The KVKs produced 1291.51 q of seeds of vegetables. KVKs tried to help the farmers by producing seeds of important varieties of different vegetables like chilli (1202.18 q), vegetable pea (7.94 q) etc. The important crops were viz. vegetable pea (Arkil, AP 3, Kashi Uday), okra (VRO-6, Ankur-41, VNR 999, Kashi-kranti, Shitla Uphar, Parbhani Kranti, Arka Anamika), Suran (G-1, Gajendra), onion (Pusa red, ADR, N 53, Funsungi, NHRDF Red 3).

6.1.5 Fodder/Fibre crops

The seed of fodder and fibre crops to the tune of **186.74** q was produced. In Uttar Pradesh Jower-F, Sudan, Dhaincha, Berseem (Vardan, JB-2, Shipra), and other fodder crops produced seed of 73.00 q, 30.00 q, 14.84 q, 20.80 q and 48.10 q respectively.

6.1.6 Spices

The total quantity of spices seeds produced was 54.80 q. The seeds of different spices were produced viz. turmeric (Megha Haldi 1) 52.00 q and Garlic (2.80 q). The detail spice wise data is given in Table-6.3.

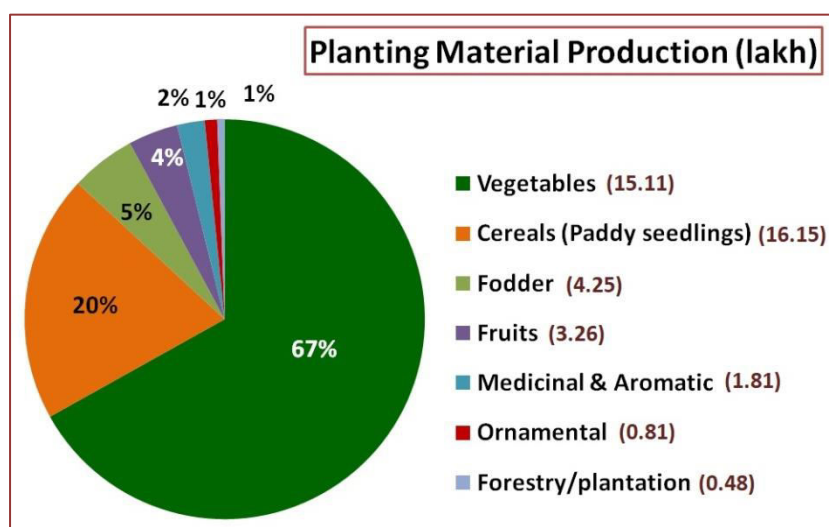
6.1.7 Commercial crops

The seed production of potato (10 q) and onion bulb (5.40 q) was recorded. The important varieties i.e. Kufari Bahar, Kufri Sutlaj, K. Sinduri, Kashi Kanchan, Kufri Chipsona-3, Kufrikhyati, Chipsona-1 of potato selected for seed production.

Table-6.3: Crop wise seed production (U.P.)

Enterprise	Name of Crop	Quantity (q)	Value (Rs. in lakh)	Distributed to farmers	No. of KVKs
Cereals	Wheat	11551.72	253.36	8203	43
	Paddy	6904.93	234.88	2528	15
	Jower	1847.48	5.85	13	3
	Maize	73.34	0.34	62	16
	Barley	38.68	1.20	227	1
	Bajra	17.80	0.15	10	11
	Mandua	0.60	0.02	3	3
	Other	5.00	0.02	25	1
	Total	20439.55	495.82	11071	-
Pulses	Field pea	886.52	85.75	676	5
	Chick pea	678.50	38.11	1085	4
	Lentil	353.90	29.89	1011	3
	Pigeon pea	181.53	13.56	638	12
	Urdbean	115.98	10.73	199	3
	Moongbean	76.56	8.26	18824	4
	Rajmash	7.14	0.64	10	3
	Other	2.00	0.20	5	2
	Total	2302.13	187.14	22448	-
Oilseeds	Mustard	988.49	45.85	3722	9
	Seasum	387.47	1.95	299	8
	Linseed	225.87	4.58	419	7
	Groundnut	84.32	5.58	215	11
	Soybean	3.32	0.30	7	3
	Toria	2.50	0.25	75	1
	Other	1.50	0.13	5	3
	Total	1693.47	58.64	4742	-
Vegetables	Chilli	1202.18	0.05	54	1
	Vegetable Pea	7.94	1.09	38	1
	Okra	0.09	0.04	43	2
	Other	81.30	1.90	25	0
	Total	1291.51	3.08	160	-
Fodder/Fibre crops	Jower	73.00	2.11	6	2
	Sudan	30.00	0	10	1
	Berseem	20.80	0.16	50	3
	Dhaincha	14.84	0.50	26	1
	Other	48.10	0.73	94	0
	Total	186.74	3.5	186	-
Spices	Turmeric	52.00	1.41	102	0
	Garlic	2.80	0.22	36	1
	Total	54.8	1.63	138	1
Commercial crops	Potato	10.00	0.36	15	5
	Onion bulb	5.40	0.09	18	2
	Other	0.55	0.03	100	3
	Total	15.95	0.48	133	-
Grand Total		25984.15	750.29	38878	75

6.2 PLANTING MATERIAL PRODUCTION



The planting material/sapling production of vegetables, fruits, ornamentals, forestry, medicinal & fodder plants developed by KVKs. During this year KVKs produced 80.87 lakh planting materials including vegetable seedlings (54.11 lakh), paddy seedlings (16.15 lakh), fodder (4.25 lakh), fruit saplings (3.26 lakh), medicinal and aromatic (1.81 lakh), ornamental (0.81 lakh) and forestry (0.48 lakh). The details of planting material

production is given in Table-6.4.

Table-6.4: Physical achievement of planting production (U.P.)

Enterprise	Quantity (in lakh)	Value (Rs. in lakh)	Distributed to farmers	No. of KVKs
Vegetables	54.11	21.37	39945	78
Cereals (Paddy seedlings)	16.15	0.34	549	50
Fodder	4.25	8.86	1850	25
Fruits	3.26	67.80	12539	63
Medicinal & Aromatic	1.81	1.10	283	15
Ornamental	0.81	2.08	1574	61
Forestry/plantation	0.48	2.75	4850	25
Total	80.87	104.30	61590	-

6.2.1 Vegetables

KVKs produced large number of vegetable seedlings (54.11 lakh) of brinjal (Pusa Kranti, Neelam, Pusa Syamla, NavKiran, Nishant, Pusa Hybrid-6, Pusa purple round, Pusa Shyamala, Pant Rituraj, PPC, Kashi Taru, Kashi Uttam, Kashi Arun, Kashi Sandesh, Mahi Rubi, Kalyanpur Long, Karan, Sapna, Ramnagari), chilli (Tycon, Shola, K-2, Pari hot/ Indum, Mahabharta, Arka Meghana, Kashi Anmol, Arkameghna, Akanksha, Kullu, S-78, G-4, Azad Mirch-1, Pusa Jwala, VNR 200, Kashi anmol, Kasi Tez), tomato (Avinash-3, Kashisharad, Arka Samrath, Pusa Gaurav, Shivalik, Selection 22, Pusa Hybrid-8, Solan Lalima/Roma, Kashi-Aman, Vaishnavi, NP7715, Azad T-6, Kashi Abhiman, Arka Rakshak, Arka Vishal, Hy -Deo, Namdhari, Mahavir, Himsona, Pusa Ruby, Pusa Rasmi, Rohini, NDT-60), cabbage (Cabbage GA, Pusa Drumhead, NHC-505, KGMR-1, Diamond Express, BC-90, Snowball, Sankar Tej, Pride of India, Golden Acre, Ajanta/S-92, Kaveri, G Ball 65), cauliflower (Pusa Posija, Pusa Early kuwari, GS—75/ Girija, PSBKT-25, Girza, Madhav, Snowball, Pusa Kunwari, Pusa Deepali, Hy Empire, Early Winter, Madhuri, SB. 16, Pusa Deepali, Sabour Agrim, Ketaki, Poosi, Maghi), broccoli (Green Mazic, KTS 1, Quistro, Dynasty, Green Hut), capsicum, onion (Bheema Kiran, Bhima Sakti, AFLR, Gauran, Pusared, Agri found light red, Nasik Red, Nasik 53, NHRDF Red-3), cucumber (Green slam, Kamini), bottle guard (Varuna, Sharad, Narendra Rashmi, Nova, Pusanaveen) and sponge guard (Kashi Divya, Alok) etc. Quality seedlings made available to the farmers for enhancing their profitability and livelihood. The detail of vegetable crops with quantity of seedlings produced are given in Table-6.5

6.2.2 Fruit

The total fruit saplings were 32.69 lakh produced by the KVKs of Uttar Pradesh. Different fruit varieties have taken for different crops i.e. mango (Chausa, Kapoori, Gaurjeet, Dushari, Lungra, Amrapali); aonla (Chakaiya, NA-6, 7, 10); guava (Lalit, Sweta, L-49); lemon (Kagzhi Lime, Eureka, Rangpur Lime, Pant Lemon); papaya (Ranchi selection, Sinta-1, Mayuri, Red lady, Madhu, Lalpari, Coorg Honey Due, Pusa Dwarf, Pusa Delicious); lichi (Shahi, China, Rose scented); bael (NB-4, 5, 7, 9, CISH B-1, CISH B-2); pomegranate (Bhagwa); karonda (Gulabi); The detail of fruit saplings produced is given in Table-6.5

6.2.3 Production of ornamental, forestry medicinal & other plant saplings

KVKs of this zone produced ornamental (0.81 lakh), medicinal and aromatic (1.81 lakh), forestry plants (0.48 lakh) and fodder plants (4.25 lakh). Forestry saplings included Shisham (Desi), teak (local), poplar (S7-Series pp-5, ph-1, ph-2, G-48, Bareilly clones, G-48, L-Series), neem (Desi), eucalyptus (local), Cajurina, etc. Ornamental plants such as rose (Grief template), marigold (African Mariuld, Pusa Narangi, Pusa Basanti, Pusa Narangi), rajnigandha, calendula, croton, poppy, harshingaretc. This zone also produced lemon grass (Pragati) and alovera (Jafarabad). The details are given in Table-6.5.

Table-6.5: Enterprise wise and crop wise planting material production (U.P.)

Enterprise	Name of crop	Quantity (No.)	Value (Rs)	Distributed to No. of farmers	No of KVKs
Vegetables	Onion	4105721	543288	1318	13
	Tomato	412412	290874	7470	14
	Chilli	274648	187140	5956	10
	Brinjal	262724	188042	8506	12
	Cauliflower	144753	124907	4066	2
	Cabbage	69549	560465	2857	4
	Broccoli	41375	63305	2832	1
	Capsicum	18279	25847	1898	10
	Sponge gourd	13055	18541	308	1
	Bottle gourd	6423	25373	535	2
	Cucumber	4518	9440	223	2
	Pumpkin	4396	10940	330	1
	Knolkhole	2876	7252	55	1
	Bitter gourd	1564	6488	241	1
	Summer Squash	505	2560	84	1
	Marrow	193	579	13	1
	Mushroom	63	15900	77	1
	Others	48249	56378	3176	1
	Total	5411303	2137319	39945	78
Fruits	Mango	46979	3460966	2429	12
	Papaya	44014	478359	2493	8
	Beal	13557	36371	450	1
	Guava	8623	169411	1904	2
	Aonla	4718	62756	410	2
	Lemon	4682	117756	906	2

	Jamun	2400	8576	374	1
	Jack fruit	2137	23826	501	1
	Karonda	1376	12686	353	1
	Apple	1035	15525	650	1
	Litchi	753	41810	168	1
	Pomegranate	298	8160	92	1
	Citrus	294	3056	85	1
	Ber	224	1056	116	1
	Mausammi	152	7600	150	0
	Custard apple	35	1750	50	3
	Others	195646	2329460	1408	25
	Total	326923	6779124	12539	63
Ornamental	Marigold	42054	25550	491	3
	Poppy	5202	3350	16	2
	Harshingar	3983	39935	50	3
	Sweet William	3800	1100	12	2
	Calandula	3724	6220	30	2
	Rose	2638	5180	153	1
	Pendula	2531	1445	6	2
	Chirayata	1800	1800	10	3
	Gudhal	1668	3010	54	1
	Rajnigandha	812	8120	34	3
	Ashok	400	400	6	4
	Chrysanthmum	242	1610	108	5
	Crotan	182	1740	72	3
	Vervina	84	1680	20	4
	Red erration	58	1740	8	2
	Baugain villia	58	240	14	1
	Ficus benajamina	48	1440	6	3
	Durenta Golden	40	800	10	3
	Gladiolus	38	750	14	2
	Glardia	10	300	6	2
	Other ornamental	11505	101705	454	10
	Total	80877	208115	1574	61
Medicinal & Aromatic	Satawar	5000	15650	5	1
	Lemon Grass	1360	9635	37	2
	Others	174563	83170	241	12
	Total	180923	108455	283	15
Forestry/plantation	Neem	26792	224420	2331	7
	Other forestry	12330	6500	1840	2
	Eucalyptus	3400	5500	170	3
	Saguan	2105	15075	10	2
	Teak	1468	9755	84	3
	Seasum	1200	8690	300	3

	Poplar	520	4020	94	2
	Mahua	50	750	21	3
	Total	47865	274710	4850	25
Fodder	Napier	407393	773558	1638	5
	Para	2000	4000	35	3
	Setaria	2000	4000	15	1
	Sudax Chery	4000	4500	10	1
	Others	10000	100000	152	15
	Total	425393	886058	1850	25
Cereals	Paddy seedling	1615000	34190	549	50
	Total	1615000	34190	549	50
	Grand Total	8088284	10427971	61590	-

6.4 PRODUCTION OF BIO-PRODUCT

The KVKs of Uttar Pradesh produced 3660.13 quintal of bio-products. It included vermi compost (1509.75 q) and NADEP compost (520.26 q). Besides, KVKs also produced 60.90 q bio pesticides, 30.45 q bio-fungicide and 82.10 q other bio- products. The details are given in Table-6.6.

Table-6.6: Livestock and fingerling production

Bio-product category	Bio-product	Quantity (q)	Value (Rs)	No. of farmers	No of KVKs
Bio-fertilizer	Vermicompost	1509.75	1309183	1335	9
	Nadep compos	520.26	221060	169	3
	FYM	140.05	69600	6	1
	Other	56.18	69150	277	5
	Total	2226.24	1668993	1787	13
Bio-pesticide	Beauveria bassiana	0.45	3250	18	2
	Trichoderma Viridi	51.15	763950	1406	1
	Botanicals	9.30	9300	644	6
	Total	60.90	776500	2068	9
Bio-fungicide	Trichoderma harzianum	30.30	450000	956	1
	Other	0.15	750	15	3
	Total	30.45	450750	971	4
Other bio-product	Bio Agents	4.00	22050	398	6
	Honey	12.69	163700	1281	8
	Vermiculture	14.68	52562	122	7
	Worms	50.67	357630	166	1
	Vermis	0.06	6000	6	5
	Total	82.10	601942	1973	27
	Grand Total	3660.13	3498185	6799	-

6.5 LIVESTOCK & FINGERLING PRODUCTION

KVKs of Uttar Pradesh produced 212.54 lakh livestock strains including 4870 dairy animals including cows, buffaloes, calves, goat etc by 25 KVKs; poultry (15195) including broilers, layers, duals, ducks etc by 34 KVKs; piglets (430) and fisheries (212.33 lakh) by 32 KVKs respectively. The amount of Rs 81.42 lakh was collected from the produce. The details are given in Table-6.7.

Table-6.7: Livestock and fingerling production

Livestock category	Livestock	Number	Value (Rs)	No. of farmers	No of KVKs
Dairy animals	Cows	17	446000	2	7
	Buffaloes	19	1010000	13	1
	Calves	66	522000	0	2
	Goat	218	1032750	51	3
	Others	4550	311130	4	12
	Total	4870	3321880	70	25
Poultry	Broilers	2082	735728	1030	2
	Layers	10346	493880	164	16
	Duals (broiler and layer)	286	169546	84	1
	Japanese Quail	132	15840	12	4
	Ducks	404	1195200	0	3
	Others	1945	29634	136	8
	Total	15195	2639828	1426	34
Piggery	Piglets	30	142000	12	6
	Others	400	2000	0	4
	Total	430	144000	12	10
Fisheries	Indian carp	2034740	1632100	1282	15
	Exotic carp	38005	142000	52	7
	Others	19160320	262280	198	10
	Total	21233065	2036380	1532	32
Grand Total		21253560	8142088	3040	

SEED & PLANTING MATERIAL PRODUCTION



Planting material production: KVK Chandauli



Vegetable seedling production : KVK Lakhimpur Kheri-II



Seed production of turmeric: KVK Bhadohi



Production of vermicompost: KVK Chandauli



Production of Paddy : KVK Prayagraj-I



Production of blackgram: KVK Moradabad-I

SUCCESS STORIES

1. Cultivation of tomato on raised bed and staking method: KVK Ambedkar Nagar

Introduction:- Sri Atma Ram Maurya is 48 years, education Graduate in B.A.,. Previously, working in Delhi in a Company of Electronic getting monthly salary Rs.20,000. He returned back his home during lock down due to Carona virus COVID-19 during March,2020. he cultivated rice-wheat crops and tomato but he faced poor production of tomato due to attack of diseases and poor fruit quality.He has land holding-3 acre. Previously, he cultivated rice-wheat crops and tomato some vegetables but he faced poor production due to attack of diseases and poor fruit quality.



KVK interventions and Support:- KVK, Ambedkar Nagar imparted Capacity building Training for Migrant Labours under P.M.G.K.R.A. on Scientific vegetable production in July,2020 in which Sri Atma Ram Maurya participated and he acquired the knowledge about tomato production on ridge planting , staking method to reduce the weed infestation and moister loss and disease incidence in the spacing of 75X45 cm., fertilizer dose NPK-120:60:50 kg/ha. The ridge planting , staking in tomato, yield increased up to 52.33% as compared to flat planting (FP) of tomato increase efficient use water, promote the plant growth due to better root development, recued the water loss, disease incidence and added increases income to the farmers.

Output:- Farmer applied the recommended doses of fertilizers NPK120:60:50 kg /ha in hybrid tomato crop as per suggestion of KVK scientists. He recorded cost of cultivation Rs.62100/ha., gross return- Rs. 280300/ha and B: C ratio-4.5. He got total net profit from Tomato Variety-Avinash-1 in one ha.- Rs. 2,18,200/-

Outcome:- The outcome of this demonstration motivated the farming communities of nearby villages to replace their old varieties by Hybrid Tomato varieties. Sri Atma Ram Maurya is very happy on improvement in their income, livelihood by latest scientific technology of tomato and other seasonal vegetable production.

Impact:- Farmer is becoming one of the progressive and learned farmers for others with regards to popularization of technology of tomato production on raised bed, staking with improved variety. This technology helps him for livelihood, empowerment. Now this techniques is adopted by 12 farmers in his village adopted this technology by seeing and believing.



Field of Sri Atma Ram Maurya of tomato production on raised bed and staking method

2. Mustard becoming popular among farmers : KVK Ambedkar Nagar

Introduction:- Mr. Dileep Kumar Verma, village & post Hidi Pakariya Block:Bhiti , district:Ambedkar Nagar, a farmer who was selected for this demonstration. He was earlier involved with local variety of mustard Vardan or Varuna. These varieties were low in yield

Plan, Implement and Support:- KVK Ambedkar Nagar tries to make them aware regarding scientific cultivation of mustard. That starts from land preparation to harvesting. This KVK has encouraged the farmer for soil testing and on the basis of that farmer was advised for balanced dose of chemical fertilizer with high yielding variety Pant Yellow Mustad-1. That was sown on 12-10-2020 with line sowing and fertilizer application was done with basal application in which half dose of nitrogen full dose of SSP and full dose of MOP as recommended. Rest nitrogen used after first irrigation.

Output:- Farmer adopted the the balanced dose of chemical, fertilizer (N:P:K:S::120:60:40:30) kg/ha in mustard crop as per suggestion of KVK's scientist for his 0.4 ha land & local yield was 13.20 q/ha with recommended technology. Crop yield increased by 15.90% with yield of 15.30 q/ha. The economical gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 23400, Rs. 61200, Rs. 37800 and 2.60 correspondingly.

Outcome:- Mustard crop is the major oilseed crop of the district. KVK Ambedkar Nagar conducted 41 demonstrations in 01 village during 2017-18 in an area of 20 ha at farmers' field with using HYV Pant Yellow Mustad-1 and balanced dose of chemical fertilizer (N:P:K:S::120:60:40:30) kg/ha. This variety has been disseminated in 25 villages of the district in area of approximately 90ha. The outcome of this demonstration motivated the farming communities to replace their old varieties, non-descriptive varieties. Mr. Rahul Singh is very happy on improvement in their income, livelihood and set forth example for others.

Impact:- Farmer is becoming one of the progressive and learned farmers for others with regards to popularization of Pant Yellow Mustad-1. This technology helps him for livelihood, empowerment and make him enthusiastic regards oilseed production. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development.



KVK scientists visited field of Mr. Dileep Kumar Verma Mustard field

3. Pigeonpea becoming popular among farmers : KVK Jaunpur

District Background:

District Jaunpur comes eastern agro-climatic zone and Maize- Wheat, Paddy-Wheat crop zone of Uttar Pradesh. This zone is located in the east of the state between 25.7490' N-Latitude and 80.6987' E longitude with an altitude ranging from 80 m to 88 m above the mean Sea level. Total geographical area of the district is 4038 sq kms and a total cultivable area is 2.81 lakh ha. Out of which net sown area is 2.79 lakh ha. The area under irrigation is only 2.50 lakh ha. The main crops of the district are paddy (rice), wheat, maize, sugarcane, pigeon pea (long duration), chickpea vegetable and oilseed.

Situation analysis/ Problem statements:-

Mr. Indra shen singh, village Pattirao, Post: kauli block: Buxa, district: Jaunpur, a farmer who was selected for this demonstration. He was earlier using local variety of Pigeon pea variety Bahar and Amar. These varieties were low in yield. Mr. Singh were sowing of pigeon pea in flat field with broadcast method, no use of fertilizers and plant protection techniques.

Plan, Implement and Support:-

KVK Jaunpur take action to make them aware regarding scientific cultivation of pigeon pea. That starts from land preparation to harvesting. This KVK has encouraged the farmer for soil testing and on the basis of that farmer was advised for balanced dose of chemical fertilizer with high yielding variety Narendra arhar-2. That was sown on 10/07/2017 with ridge bad technique; seed treated with rhizobium culture and fertilizer application was done on the based soil test with basal application at the time of sowing.

Output:-

Farmer adopted the balanced dose of chemical, fertilizer (N:P:K:S::20:40:20:20) kg/ha in Pigeon pea crop as per suggestion of KVK's scientist for his 0.8 ha land. Pigeonpea local yield was 12.58 q with recommended technology and increased by 25.58% with yield of 16.31 q. The economical gain in terms of per unit expenditure gross income, net return and BCR are recorded Rs 19200, Rs 114170, Rs. 94970 and 4.95 correspondingly.

Outcome:-

Pigeon pea is the major Pulse crop of the district. KVK Jaunpur conducted 195 demonstrations in 26 villages during 2013-14 to 2017-08 in an area of 75 ha at farmers' field with using HYV NA-2 and balanced dose of chemical fertilizer (N:P:K:S::20:40:20:20) kg/ha. This variety has been disseminated in 285 villages of the district in area of approximately 1150 ha. The outcome of this demonstration motivated the farming communities to replace their old varieties, non-descriptive varieties. Mr. Singh is very happy on improvement in their income, livelihood and set forth example for others.

Impact:-

Farmer is one of the progressive and innovative farmer for others with regards to popularization of Narendra Arhar-2. This variety is resistant to Sterility Mosaic Virus and Wilt, tolerant to pod borer. Bold seeded with higher Dal recovery and Suitable for timely and late sown conditions. This technology helps him for livelihood, empowerment and make him enthusiastic regards pulse 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. Singh is very happy with this improved production and management technology and set forth example for other farmers of the district.



4. Integrated Farming System (IFS) model: KVK Mau

Situation analysis/Problem statement:

Sri Rakesh Singh having 2.25 acre of land. Due to tarai region it was water logging area having limited options for crop production. Another problem was the land is surrounded by pond from two sides and mango garden from other side, thus limiting the scope of proper drainage. He visited KVKs IFS model and interacted with experts at KVK. We have also visited the farm and suggested interventions.

Plan, Implement and Support:

KVK scientist after visiting the farm advised going for fishponds in low Land area. The soil dug may be utilized as filling to raise the level of other area. Raised area will facilitate to grow/establish other components of IFS related activities. Training imparted on Integrated Fish Farming at KVK, which helped him in successfully starting the fishponds. He was also advised to establish a Poultry unit besides the fishpond. Latter he took training on Poultry farming, Dairy, Bee keeping, Mushroom production, Crop production and Horticulture from Krsishi Vigyan Kendra, Pilkhi, Mau and added these units from time to time. KVK supported him by providing technical expertise, newly released high yielding variety seeds and planting material, and facilitated exposure visits. Regular visits of KVK experts and suggestions for further improvement paved the way of his success.

Output:

Farmer has developed the IFS model in such a way that every component of the model is supplementing to other component in the system and this has helped him in reducing the cost of production and maximizing the returns.

Size and Average Production of different components

Component	Breed	Number/Area	Average Yield	Feed/Nutrient Management
Dairy (Buffalo)	Murrah	03	2700 kg/lactation	Paddy straw, Berseem, Napier, Wheat straw and concentrate mixture
Poultry	Kuroiler	2000	180 eggs/bird	Rice bran, Wheat Bran, Pulse bran and Farm Waste
Fisheries	Deshi breeds	2500/ fingerlings	5000 kg/acre	Farm/ dairy/ poultry/ duckery waste and concentrate

Crop Production	Wheat, Paddy, and Field pea	2.0 ha	43.4 q/ha	mixture manures from livestock and other poultry unit, farm waste, vermicompost, DAP/Urea
Fodder	Napier, Berseem,	0.2 ha	35000 kg/year	manures from livestock and other poultry unit, farm waste, vermicompost, DAP/Urea
Intercropping	Mango+ Turmeric	0.4 ha	5.0q Mango+ 2.5q Turmeric	poultry unit, farm waste, vermicompost, DAP/Urea

Annual Average Return from different components of IFS

Units	Cost of production (Rs)	Gross return (Rs)	Net Return (Rs)	Benefit Cost ratio
Fishery	200000	350000	150000	1.75
Dairy	120000	216000	96000	1.8
Poultry	240000	360000	120000	1.5
Crops	130000	240000.0	110000	1.84
Intercrop	9500	20000	10500	2.10
Agribusiness	70000	130000	60000	1.85
Total	769500	1316000	546500	1.71

Outcome: Through, adoption of IFS model Mr Singh income has increased almost four times and his success encouraged other farmers of the district and many more farmers have adopted the model. As of now, 40 farmers are practicing different kinds IFS model successfully.



5. Protective Cultivation: KVK Sidharthnagar

Er. Atul verma is a progressive farmer of village Babhani, Block Khuniyav District Siddharthnagar. he had passed B.Tech. in Mechanical Engineering and serving in reputed MNC. Due to far away from his village hi is not happy to his job there for he left his job and decided to own farming at his area.

He started farming in 2017-18 and growing Paddy and Wheat but he is not gating sufficient net income for his livelihood. He contacted KVK Scientist and discussed about new techniques of cultivation. After that he decided to develop a Polyhouse in One Acre area for

growing high value crops. He contacted District Horticulture Department with the help of KVK Scientist and he make a plan to established a polyhouse in one acre land with the help of District Horticulture Department.

Income Before Polyhouse:

Components	Names	Area (Acre)/Number	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Field Crop 1	Paddy	10.0	160.0	240000.00	110000.00
Field Crop 2	Wheat	10.0	165.0	267000.00	150000.00
Total					260000.00

Farmer getting annul income Rs. 2.6 Lacs by growing paddy and wheat cropping system which is not sufficient for his livelihood.

Income After Poly house:

Components	Names	Area (Acre)/No	Production (q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Field Crop 1	Paddy Kalanamak (Seed Production)	7.0	80.0	640000.00	415000.00
Field Crop 2	Wheat (Seed Production)	7.0	135.0	335000.00	200000.00
Hort. Crop 1	Potato/ other vegetables Crop	2.0	500.0	600000.00	260000.00
Hort. Crop 2	Flower Cultivation	1.0	50.0	700000.00	400000.00
Total					1275000.00

He changed his cropping system. In Kharif session in spite of paddy crop he grown Kalanamak (Pusa-1638, KN-3 and local Kalanamak) in 7 acre land for seed production purpose. In Rabi session he also taken Wheat seed production in 7 Acre land. In 2 acre land he grow potato and other seasonal vegetables and gat good net profit with the help of KVK Scientist. In polyhouse he is growing Jarvera flowers and marketing in Lucknow and gating good profit. By this technical cultivation of cereals, Vegetables and flowers cultivation he in gating annual net income more than 12 Lacs per Year.

Impact:

- The line departments of district are using him as a progressive farmers and visiting their beneficiaries at their field.
- The farmers of the district procure good quality Paddy Kalanamak different variety of seeds and Wheat seeds in cheap rate.
- Fresh vegetables also provided to nearby villagers and local sellers.
- Other farmers are also taking interest to develop such types of infrastructure.



Jarbera Flower Cultivation in Poly House

6. Integrated Farming System developed: KVK Sidharthnagar

Mr Aniruddha Singh is a progressive farmer of village Sisawa Block Mithwal District Siddharthnagar. He had passed B.A. LLB., having 25 acre of land out of them he has covered 5 acres of land in Mango Orchard in rest 20 acres land was using in production of Paddy and Wheat. He was not satisfied by getting net profit which he was found. He knew from his source that KVK is working in his district. He contacted KVK Scientists and frequently participated KVK activities. KVK Scientists advised him to construct a Fish pond in 5 acres of land with help of District fisheries department. He met district fisheries department officers and prepared fish pond in 5 acres land. He started fish rearing. He started fish rearing and custom hiring services by purchase of 2 combine harvester and 1 Tractor with full Agriculture Implements. At present he is earning more than 15 lacs per year as net profit from his 25 acres of land

Initially he started farming by growing Paddy and Wheat production and net Income are as follows.

Before Intervention

Components	Names	Area (Acre)/Number	Production (q/liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Field Crop 1	Paddy	20.0	260.00	390000.00	188000.00
Field Crop 2	Wheat	20.0	280.00	455000.00	232000.00
Hort. Crop 1	Mango Orchard	5.0	250.00	300000.00	195000.00
Total					615000.00

Before intervention he was getting about six lacs net income per year by Paddy, Wheat and mango orchard.

After Intervention:

Components	Names	Area Acre/No	Production (q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)	Production	Income
Field Crop 1	Paddy	15.0	270.00	499500.00	240000.00	38.46	70.21
Field Crop 2	Wheat	15.0	285.00	560000.00	280000.00	35.71	43.60
Hort. Crop 1	Mango Orchard	5.0	300.00	420000.00	250000.00	20.00	28.20
Fisheries	IMC	5.0	120.00	1620000.00	480000.00	100.00	100.00
Custom Hiring	Combine & Tractor	2+1	--	600000.00	250000.00	100.00	100.00
Total					1500000.00		

Mr. Singh is started his cultivation under supervision of KVK Scientists in 2019-20. At present he gets about 5 Lacs by growing Paddy and Wheat, 2.5 Lacs from Mango Orchard, 4.8 Lacs from Fisheries and 2.5 Lacs from custom hiring services. At this time he is very happy and always touches in KVK Scientists.



Fish Farming



Custom Hiring Services

Impact:

- Mr. Singh has developed his IFS Model in such a way that every component of model is supporting to others component in the system and this has helped him in reducing the cost of cultivation and maximizing the net income.
- Nearby Villagers are getting good quality fresh fish in cheaper rate.
- He has provided employment for 10-15 labourers every day.

7. Use of improved agricultural technologies in vegetable crops: KVK Sonbhadra

Situation analysis/Problem statement:

Sri Babu Lal Maurya Village Manpur, Block Robertsganj, District Sonbhadra (Mobile No. 9559456465, Adhar No. 802488437865) having 5.50 acre of land. He always used to apply different innovative ideas in agriculture especially in vegetable crops. Initially Sh. Babulal used to grow cereals (Ricer-Wheat) in his land with traditional practices. After came in to contact with KVK scientists and district officials, he get motivated and started using improved agricultural technologies especially in vegetable crops.

Plan, Implement and Support:

By adopting recommended scientific production technology he is presently growing offseason vegetables (Cabbage, Cauliflower, Broccoli), Tomato, Capsicum, Brinjal, Chili, Pea etc. In addition to this he is also growing Rice, wheat, mustard by applying improved techniques. Production, productivity and income from his land get increased as a result of applying different agricultural technologies provided by the KVK scientists. After the continuous efforts of the KVK, presently he is using following technologies in his land

Regular visits of KVK experts and suggestions for further improvement paved the way of his success.

Output: Farmer has developed the IFS model in such a way that every component of the model is supplementing to other component in the system and this has helped him in reducing the cost of production and maximizing the returns.

Size and Average Production of different components

Component	Crop Name	Number/ Area	Average Yield	Feed/Nutrient Management
Vegetable Production	Tomato, Cauliflower, Brinjal, Chili	3.0	305 qt/Acre/Year	manures from livestock and other farm waste, vermicompost, DAP/Urea
Crop Production	Wheat, Paddy, and Mustard	3.5	45qt/acre	manures from livestock and farm waste, vermicompost, DAP/Urea
Mini Sprinkler	Tomato, Cauliflower, Brinjal, Chili	2.0	205 qt/year	-
Drip Irrigation	Tomato, Cauliflower, Brinjal, Chili	1.0	100 qt./Year	-
Vermicompost	-	04 Unit	120 qt./Year	farm waste
Dairy (Cattle/ Buffalo)	Deshi and Murrah	06	2440 kg/lactation	Berseem, Napier, Wheat straw and concentrate mixture

Annual Average Return from different components of IFS

Units	Cost of production (Rs)	Gross return (Rs)	Net Return (Rs)	BC Ratio
Veg. Production	175000	865000	690000	4.94
Crop Production	65300	165400	100100	2.53
Mini Sprinkler	125000	445500	320500	3.56
Drip Irrigation	35500	215000	179500	6.05
Vermicompost	28000	96000	68000	3.42
Dairy (Cattle/ Buffalo)	65700	229600	63900	3.49
Total	494500	2016500	763200	3-99

Outcome: Sh. Babu Lal Mauraya has been an ideal and burning example among the farming fraternity of the entire district. He was also awarded with different district and state level awards from Agriculture and Horticulture department, U. P. government, private organization and an award from the Hon'ble VC, NDUAT, Ayodhya. Through, adoption of IFS model Mr Maurya income has increased almost three times and his success encouraged other farmers of the district and many more farmers have adopted the model. As of now, 34 farmers are practicing different kinds IFS model successfully.



8. Successful multiple cropping system: KVK Varanasi

Situation analysis/problem statements

Sri Ram Lal Verma, village Jayapur, block Arazi Line having 8 acre land. He is followed paddy – wheat cropping system on their field. He was facing the problems of poor yield and low income from their farm. Sri Verma visited KVK Varanasi and discussed with scientists about their problem of poor productivity and low income.

Plan and Implementation and Support

KVK scientist visited to the field of Sri Ram Lal Verma and suggested to him for adoption of integrated farming system on their field. After visit of scientist he changed their pattern for growing of different crops on their field and also start rearing of milch animals (buffalos) and planted fruit plants on their field. Krishi Vigyan Kendra Varanasi scientists visited time to time farmers field for scientifically look after the crops and animals. Scientist also suggested to him for soil testing, proper irrigation management, improved variety seed of crops, balance use of fertilizers, proper management of weed, insect, pest, and disease of crops with proper health case of animals.

Outputs

Sri Ram Lal Verma has started some component of integrated farming system on their farm and proper utilization of farm wastage for the making of organic manures and used for growing of various crops that was helps for minimizing the cost of cultivation and also improving of net income.

Economics of various crops

Sl. No.	Name of Crops	Area (acre)	Cost of cultivation/acre	Total cost of cultivation	Yield (qt.)	Total income	Net return	B:C Ratio
Kharif crops								
1	Paddy	4.00	12000	48000	80.00	145200	97200	3.03
2	Maize	0.50	10000	5000	9.75	18037	13037	3.61
3	Urd	1.00	6500	6500	3.50	21000	14500	3.23
4	Til	1.25	6500	8125	3.25	22279	14154	2.74
5	Arhar	0.25	28000	7000	2.50	15000	8000	2.14
6	Sugarcane	0.50	20000	10000	110.0	34650	24650	3.47
7	Bitter guard	0.25	55000	18500	50.00	60000	41500	3.24
8	Sponge gourd	0.25	55000	17500	55.00	55000	37500	3.14
Rabi crops								
9	Wheat	5.00	12500	62500	105.0	202125	139625	3.23
10	Mustard	0.25	7000	1750	2.50	11062	9312	6.32
11	Gram	0.25	12000	3000	3.00	14625	11625	4.88
12	Potato	0.25	20000	5000	25.00	20000	15000	4.00
13	Veg. Pea	1.00	15000	15000	65.00	97500	82500	6.50
14	Cauliflower	0.25	15000	3750	23.00	24150	20400	6.44
15	Brinjal	0.25	18500	4625	22.00	26400	21775	5.71
16	Garlic	0.25	17500	4375	4.50	18000	13625	4.11
17	Onion	0.25	17500	4375	15.00	22500	18125	5.14
18	Coriander	0.25	12000	3000	4.50	9000	6000	3.00
Total				228000		816528	588528	

Economics of Orchard

Sl. No.	Fruit plant	Area (acre)	Operational Cost	Total income	Net income	B:C ratio
1	Mango	2.50	8000	25000	17000	3.125
2	Guava					
3	Orange					
4	Mausambhi					
5	Lemon					
6	Maringa					

Economics of Animal Husbandry

Sl. No.	Animals	Numbers	Operational Cost	Total income from milk	Net income	B:C ratio
1	Buffalos	2	40000	90000	50000	2.25
2	Cow	1	10000	18000	8000	1.18
3	Goat	4	12000	26500	14500	2.21

Economics of IFS system

Total cost of cultivation per year :	Rs. 298000/-
Total income per year :	Rs. 976028/-
Net income per year :	Rs. 678028/-

9. Economic prosperity through Horticulture based Integrated Farming System: KVK Mahoba

Situation analysis/ Problem statements : Shri Chinta Haran belongs to a poor farmer family. His father was practicing traditional agricultural practices which were not sufficient to meet economical needs of family. Hence, Chinta Haran has left his study after class 8th to help his father in agriculture. With rain fed farming and limited source of irrigation

initially Chinta too got disappointed from farming but due to family reasons he could not went out for search of a job. Thus, staying in village and doing agriculture was only option for him.

Plan, Implement and Support: In search of sustainable livelihood and financial help Chinta Haran came in contact of government departments. With the technical guidance from KVK and input support from different schemes of Agriculture, Horticulture departments, MGNREGA and RKVY schemes, he started horticulture based Integrated Farming. He has adopted micro-irrigation system and once rainfed farming area was also became irrigated due to better water use efficiency. Presently he is using drip irrigation system in 4.50 ha. area for cultivation of horticultural crops like guava, lime, brinjal and chilli. With the help of sprinkler systems he is irrigating 10 ha. land and now able to do farming. He has well developed dairy unit with composting units to support agri-horti crops cultivation and taken pulse seed production from KVK, Mahoba in 2 ha area.

Output : Constant efforts and hard working nature of Chinta Haran has established wonderful integration among different unit of farming available with him. Apart from his land now he has taken land on lease and doing farming on more than 15ha. area. He is selling more than 700 quintals of fruits and vegetables 300 quintals of pulses, oilseed & cereal grains per annum.

Outcome: Horticulture based Integrated farming system proved life changing for Chinta Haran and he is now able to earn more than 12lakhs from farming. He has also generated more than 3000 man day's employment in the village. He is now well known farmer in the district for his progressive farming. Inspired from him many farmers in district opting this system.

Impact

a) Technological: use of micro-irrigation in horticulture and agriculture has proved very beneficial to the area. Area under micro-irrigation is increasing year by year. Mass of farmers are opting horticulture based integrated farming system.

b) Economic: Horticulture based integrated farming system has great economical potential and on an average he is earning Rs.1.20Lakh/hectare/annum.

c) Social: Inspired from Chinta Haran hundreds of farmers are opting micro-irrigation system and horticulture based integrated farming for sustainable livelihood from agriculture.





10. Diversified agriculture with Live stock component: KVK Fatehpur

Situation Analysis: Santosh Kumar, farmer of Village Sujanipur, Block Vijaipur Post – Khaga from Fatehpur district, though being a Post Graduate, could not obtain employment, started ancestral agriculture but due to use of locally available varieties and traditional farming his annual income was very less.

Plan, implement, support and linkage with KVK: After getting in contact with KVK scientist and attending training programme , he started crop diversification with livestock and vermicompost .Mr.Santosh started cultivation of rose in 0.2 ha, garlic in 0.2 ha, fodder in 0.1 ha, seasonal vegetables like mint, chukander, coriander, parwal etc in 0.2 ha , cereals/pulses in 0.3 ha and maintains livestock for milk and organic manure. Ha has maintained a very strong linkage with KVK.

Output: Mr.Santosh has developed a good model of diversified agriculture , being close to Khaga mandi, his innovative practices and crops were easily acceptable and economical in the farming system.

Outcome: As diversified agriculture with livestock was practiced this innovation helped in enhancing his weekly as well as annual income and maintained the soil health by vermicompost and Farm Yard Manure.

Impact

a) Technological: : Mr.Santosh switched to diversified agriculture, always uses high yielding new cultivars and adopts seed replacement , proper seed treatment and scientific techniques, The farmers of the area have adopted latest techniques, practiced by the innovative farmer.

b) Economic: His net income during 2014-15 was only Rs.120000.00 After the intervention of KVK scientist net income during 2015-16 was Rs.163500.00, during 2016-17 along with goatery was 221500.00, income of 2017-18 reached 268250.00 higher by 21% over income of 2016-17. likewise net income during 2018-19 reached Rs335700 and in 2019-20 crossed Rs.355500.00 with the same piece of land holding i.e. almost three times in last five years.

c) Social: Getting inspired by Mr.Santosh Kumar and motivated through programmes of KVK , A large number of farmers have switched for diversified agriculture with livestock in the village and surrounding area covering around 30-35 ha.



11. Improved crop management practices: KVK Firozabad

Situation Analysis : Mr. Deewan Singh is a small farmer & part time work as a labour in Firozabad glass Factory. His income was comparatively very low due to poor management practice and growing old and local available varieties of crops as well as animal breed, his crop were also suffering from disease and pest.

Plan, implement, support and linkage with KVK: He started to adopt improved technologies in vegetable production on specially chapan pumpkin and increase wheat crop in Ravi and Urdbean & Moongbean in summer season. He replaced Bajra & wheat cropping system in 2017-18, and gradually changes deshi breed of buffalo by improved breed of murrah type buffalo.

Chapan pumpkin is more profitable in vegetable crops than other cropping system This technologies were easily acceptable by other farmers and found economical in their situation.

Chapan pumpkin is more profitable in vegetable crops than other cropping system This technologies were easily acceptable by other farmers and found economical in their situation.

Krishi Vigyan Kendra, Firozabad provided training and demonstrated improved technologies of various crops and livestock management on his field and advised time to time new technologies.

Output & Outcome: Mr. Deewan Singh's net income from 1.5 acre land was Rs 60,000 per annum in 2016-17 and is increased upto Rs 1,30,000 per annum in 2018-19. The increase in net profit (217%) over base year is only due to Improved Agricultural Practices

Impact : About 10 farmers of his village are adopting these technologies in about 2 ha area



12. IFS model for enhancing income: KVK Lakhimpur Kheri

Situation analysis/Problem statement:

Sri Maheshwar Prasad, Village-Jhakrapipri, Block- Phoolbehar, District-Lakhimpur Kheri having 07acre of land. It was fertile land and having options for crop production mainly rice, wheat, sugarcane etc. He has interacted with KVK and also visited KVK for discussion with experts. KVK scientists also visited at his farm and suggested different interventions according to their problems and needs

Plan, Implement and Support:

During discussion with Sri Prasad according his need go for cultivation of intercropping of pulses and oilseeds and other crops in autumn and spring planted sugarcane crop after increasing the spacing between row to row from 2.5 to 3-4feet by using trench maker. Also suggested that judicious use of agrochemicals to sustain the productivity and conserve the ecosystem. Later on he has interested in dairying and composting. KVK has facilitated the technical guidance, seed material and exposure visits. The visits of scientists time to time at his farm and advisories give him new horizon of successes.

Output: Sri Prasad has modified his IFS so that each component sustain and interacted with another. Thus reducing the cost of cultivation of crop and improve soil fertility.

Size and Average Production of different components

Component	Breed/Variety	Number/ Area	Average Yield	Feed/Nutrient Management
Dairy (Cattle/ Buffalo)	HF cross/ Murrah	10 (04 milking)	12 l/ day(01cow) 20 l/ day(03 buffaloes)	Oat, Barseem, Napier, Wheat straw and concentrate mixture
Crop production				
Rice	PR-113	04Acre	25q/ acre	Manures from livestock, farm waste, fertilizers viz. urea/DAP/NPK complex.
Wheat	HD- 2967,PBW-343	05Acre	16q/ acre	Manures from livestock, farm waste, fertilizers viz. urea/DAP/NPK complex
Sugarcane	CO-0238	06Acre	300q/ acre	Manures from livestock, farm waste, fertilizers viz. urea/DAP/NPK complex
Intercrop				
Rapeseed	Pitambari	As intercrop	04q/ acre	Manures from livestock, farm waste, fertilizers viz. urea/DAP/NPK complex
Coriander	Azad dhan-1	As intercrop	02q/ acre	Manures from livestock, farm waste, fertilizers viz. urea/DAP/NPK complex

Annual Average Return from different components of IFS

Units	Cost of production (Rs)	Gross return (Rs)	Net Return (Rs)	Benefit Cost ratio
Dairy	175600.00	285500.00	109900.00	1.62
Rice	90000.00	150000.00	60000.00	1.66

Wheat	93750.00	144000.00	50250.00	1.54
Sugarcane	309000.00	585000.00	276000.00	1.89
Intercrop				
Rapeseed	25500.00	42000.00	16500.00	1.64
Coriander	9900	15900.00	6000.00	1.60
Total	695500.00	1209150.00	513650.00	1.74

Outcome: After adoption of the improved technologies in different sector Sri Prasad gross income increased to the level of Rs.1209150.00 almost 1.74 times and has set as the himself as role model for other farmers also. Now this type of IFS model adopted by other farmers (about 20 farmers) in adjoining villages.



13. Protected cultivation and Plantation crop: KVK Mirzapur

Introduction : Shri Ramji Dubey of Village Nuaon, Block City, District Mirzapur used to grow paddy, wheat and mustard as the usual crops and like other farmers, complained of the reduction in income from the enterprise every passing year. After consultation with the KVK scientists and experts in the field, he decided to transform the face of his enterprise. He studied the market and came to the conclusion that considering his capabilities and resources, off-season cultivation of cash crops like vegetables and plantation of Grand Naine (G-9) banana with microirrigation systems could be rewarding for him. He went ahead with the implementation of his idea.

KVK intervention : When Mr. Dubey exchanged his ideas with the KVK experts, he was advised to choose Grand Nain (G-9) cultivar of banana for plantation and cucumber (*kheera*) and muskmelon for off-season vegetable cash crop. He was provided with all the technical input by the KVK in order to convert his idea into practice.

Output : With conventional farming practices, Mr. Ramji Dubey was earning Rs. 172772 annually and with his idea of protected cultivation of cucumber and muskmelon and plantation of banana he is currently earning Rs. 440000, a handsome over 295% increase in his income.

Outcome: Mr. Ramji Dubey with his success in the enterprise has inspired several youth and farmers who believe in experimentation and are keen to take calculated risks for their

income enhancement. More people are now contacting KVK with novel ideas to raise the productivity of their farms.

Impact: The departments of agriculture and horticulture have contributed to his success and now Mr. Ramji Dubey is inspiring people of even rainfed areas of the district to grow banana with microirrigation systems and some of the farmers have started their attempts in this direction.

14. Fish farming becoming popular in farmers : KVK Bareilly

Situation analysis/ Problem statements:- Mr. Sankar Lal Kashyap, village Aatapati, block: Bhojipura, district: Bareilly, a farmer who was advised for composite fish culture. He was earlier involved with traditional way fish farming with Less cow dung and less use of protein in fish feed due to that he was getting low yield and he was waited long duration for the fish harvesting.

Plan, Implement and Support:- KVK Bareilly tries to make them aware regarding scientific cultivation of Fish farming. That starts from Pond preparation to harvesting. This KVK has encouraged the farmer for soil testing, and on the basis of that farmer was advised preparation of pond, use of dung, use of Lime stone powder. Pond was started/fishseed (fingerlings) on 17-02-2021 with Composite fish culture (IMC +Exotic carp) application was done with water treatment and with Probiotic and Medicines as recommended. Rest all Feed management was done by the farmer in the supervision of KVK Bareilly.

Output:- Farmer adopted the scientific cultivation of Fish in Fish farming as per suggestion of KVK's scientist for his 5.0 acr land. His yield was 49.4 qt after intervention he is getting yield of 116 qt. with recommended technology. His yield increased by 134.81% with yield 66.6 q.

Outcome:- He is very happy on improvement in their income, livelihood and set forth example for others.

Impact:- Mr. Sankar Lal Kashyap is becoming one of the progressive and learned farmers for others with regards to popularization of Composite fish culture. This technology helps him for livelihood, empowerment and make him enthusiastic regards fish production. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development. The economical gain in terms of per unit expenditure gross income, net return and BCR are recorded. Rs 350630, Rs. 1044000, Rs. 69337 and 2.90 correspondingly.



Harvesting of fish at Farmer Pond

15. Integrated farming become option of livelihood security: KVK Chitrakoot

Introduction: Sri lavkush sahu s/o Sri Dinesh kumar residents of village taura, post- Nandi of Chitrakoot district. He got BA degree and moving in search of Job out of district for two years. He was taken 1.5 acre pond on lease for income and employment option but he was not able to generate income from fishery enterprise and he was on loss. After loss his friend told that you should contact to KVK for better yield , income and skill development.

KVK Interventions: KVK trained sri lavkush sahu in the field of composite fish culture. KVK also selected lavkush for frontline demonstration on fish farming during 2017-18. He also participated in govt and awareness programmes organized by KVK time to time. He taken another piece of land of an area of 4 acre from his father and started fishery – Livestock – crop based integrated farming.

Output: Farmer Mr. Lavkush adopted the scientific fish farming as per suggestion of KVK's scientist for his 0.5ha pond and added poultry, duckery and vermicomposting ,paddy ,wheat and gram cultivation in his cropping system in 0.64 ha land. His total income was Rs 57800 before adoption of technology. His income increased by 229% with increase in yield of all enterprises.

Outcome: Chitrakoot is very backward district of bundelkhand region of UP. The majority of farmers falls under small and marginal categories. So there is a need to popularize integrated farming system with suitable enterprises is necessary to double the farmers income. The pond area in the district is more than 1000 . The KVK engaged in popularizing the technology in the district and demonstrated technologies at farmers field. The outcome of these demonstrations motivated the farming communities to replace their traditional farming system to new IFS system scientifically. Mr. Lavkush is very happy on improvement in their income, livelihood and set forth example for others.

Impact:- He is becoming one of the progressive and learned farmers for others with regards to popularization of Composite fish farming along with poultry and crops. These technologies help him for livelihood security, empowerment and income generation with migration check. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development. The economical gain in terms of expenditure gross income, net return and BCR are recorded. Rs 45325, Rs. 189350, Rs. 138200 and 4.18 correspondingly.



16. Goat farming for livelihood security: KVK Ghazipur

Introduction:- This story of Mr. Gulab Chauhan, now a young farmer of Chhapri village of Ghazipur district, who is learning lots through diversified agriculture such as wheat, paddy, pigeon pea, chick pea, potato and vegetable cultivation. Village Chhapri is situated 20 km away from Ghazipur KVK Ghazipur.

KVK Intervention: Mr. Chauhan contact to KVK veterinary scientist, he visited KVK and expressed interest in goat farming and requested to once visit and see the situation and decide place for goat farming. After his request during February 2018 scientist visited Chhapri village and decided the place for Goat farming and prepared an outline of goat farm given to Mr. Chauhan. Immediately Mr. Chauhan taken action on it and after completion of goat farm preparation. After that, Mr. Chauhan purchased 20 goats of Barbari/Jamunapari breeds and reared. And again he showed interest to receive training of goat farming. Scientist organized rural youth training under ARYA (Attracting and Retaining Youth in Agriculture) during November 2019 Mr. Chauhan participated in that training along with 25 young farmers of different villages of district Ghazipur. Under this project, he got support to increase farming in the farm of one unit Jamunapari Goats (containing 9+1).

Impact: At present he is having 40 goats. During the year 2016-17, he has sold 9 goats @ average 12000/goat and earns Rs 1.0 lakh 8 thousand in a rotational year. From initial stage of farm preparation to purchase of goats and feed he spent money 2 lakh 15 thousand and during first year he earned 1 lakh 8 thousand and having 11 adult goats and 10 kids. If taken depreciation of building per year 10 per cent then total money he spent in first year is 75 thousand and earn 1 lakh 8 thousand i.e. net profit in first year is 90 thousand via both milk and goat sale. He got net profit of Rs.205000/- from milk and goat in 2021-22.

Now Mr. Chauhan and his family appreciated the effort of KVK Ghazipur helping for them in development of agri-cum-goat farming.

Economic Analysis: Fixed cost (i) Building cost : 1.5 lakh (ii) Goat cost : 0.5 lakh

Year	Building depreciation @10%/year	Feed cost and others/year	Profit from goat sale (Rs)	Profit from milk sale	No of goats maintained for next year	Net Profit/year
2018-19	1.5 lakh	-	-	-	-	-
2019-20	15000	15000*	1.08 lakh@Rs12000 /goat	12000 @Rs30/litre	21	90000
2020-21	15000	15000*	1.20lakh@Rs. 12000/goat	20000.00@Rs. 30/litre	35	110000
2021-22	15000	20000*	1.80lakh@Rs. 15000/goat	60000.00@Rs. 100/litre	40	205000

**Goat are reared under semi-intensive condition*



A View of Goat Tagging at His Farm



Training organized at Chhapri village

17. Adoption of Nutrient management technology to increased production of Sunflower (Variety- Laxmi- 101) : KVK Kaushambi

Introduction- Sunflower as a rich and good source of protein, vitamins A, B, and E, calcium, nitrogen and iron viz used by as raw and value added products. Sunflower is grown during Zaid season in district Kaushambi. Farmers faced ever low production and oil containing percentage due to not using suitable variety and appropriate nutrient management practices. Both problems (Old varieties and NM) were observed by the KVK scientist and conducted cluster frontline demonstration of Sunflower during 2020-21 to evaluate the performance of high yielding variety of Sunflower i.e Laxmi-101 with package of practices of Nutrient Management at Farmers field in district Kaushambi.

KVK Intervention - Krishi Vigyan Kendra Kaushambi conducted the cluster front line demonstration during Zaid 2020-21 on use of high yielding variety Laxmi-101 and with package of practices. The total area under the demonstration was 30 ha with involvements of 91 farmer's. Newly improved and high yielding variety Laxmi-101 incresed the production and adoptive NM technology- use of sulphur, increased oil percentage in the demonstration. Some specific characters of this variety are given below-

Specific characteristic of Variety	Package & Practices	Performance Observed
Days required to maturity: 110-125 days Plant Height-5-10 ft Seed color- black Yield- 17- 19.20 q/ha	Seed treatment (Carbendazim @ 2.5gm /kg seed) Line sowing (60 X 20 Cm) Use of Sulphur @ 20 Kg/ha Weed management Use of Pendamethilin @3.3 lit./ha next day of crop sowing Use of recommended dose of fertilizer (NPK) (60 :80 : 60 / ha), Use of Imedachloroprid (@ 1.5 ml/liter of water) to control Aphid infestation.	Plant Height- 112 cm Diameter sunflower seed head - 24cm Flower weight with seed- 600gm Flower weight without seed- 434gm Seed weight-124gm Flower head 980 seeds. Growth-Vigorous growth. Avg. Yield -17.80 Q/ha.

Critical Inputs - Seed, chemical, weedicide, insecticide and regular monitoring of demo field by KVK Scientist.

Output: The performance of the variety & package of practices were found very encouraging. The yield was observed in demo plot was 17.80 q/ha which was higher as compared to check plot i.e. 14.20 q/ha. The total cost of cultivation was Rs 22400/- in demo plot and Rs 21800/- in check plot with net profit of Rs 41680/- in demo and Rs 29320 with check respectively.

Outcome: Adoption of production technologies with high yielding variety Laxmi-101 by using sulphur and regular visits of farmer field by KVK scientist seems to be completion of the success of demonstration. Farmers were also showed their knee interest about the programme and many farmers were agreed that use these production technologies with new high yielding variety Laxmi-101 gives higher yield of Sunflower and use of sulphur increase the seed oil percentage, bold size and colour of seed.

Impact: Besides being a rich source of protein, vitamins A, B, and E, calcium, nitrogen and iron, it increases the production of the crop, it is become widely adopted NM Technology practices in the district. This technology is spread neighboring villages and near about 152 farmers were adopted. Innovative Farmers Groups have been developed with the participation of the farmers who are helping each other for cultivation of crop at their own level.



Sunflower variety Laxmi-101 under NFSM cluster demonstration on Oilseeds.

18. Impact of IPM on production and market value of Brinjal.

Introduction: Plan, Implement and Support:- IPM is play paramount role of shoot and fruit borer in brinjal for commercial vegetable growers as shoot and fruit borer in brinjal reduces 35 - 65 % and market value 40%. Therefore it is necessary to thought desirable to implement IPM programme in brinjal production form planting to harvesting in technology. Support of scientist of KVK Sultanpur-1 a vegetable grower Mr. Satish Kumar go through the technology and recorded 65 - 85% less infestation in treated plant as compare to control.

KVK Intervention: Programme selected form summer planning of plot in May followed by seedling treatment with Bavaria bassiana (10 g/ l of water) and soil treatment @ 1 kg/ ha. mixed with 40 kg. of FYM and spray of nimbecidine 0.5% and pheromone trap (Lucine luer 10 no./ha.)

Output:- Percent incidence of treated plot in 4.6 % and in control plot the incidence was recorded was 65%. Cost of IPM is Rs. 7100.00/ha. and cost of plant protection by farmer practice Rs. 34600/ha. Money saving from IPM Rs. 18050.00/ha.

Outcome:- Brinjal crop is the major vegetable crop of the district KVK Sultanpur-1 conduct 10 demonstration in 1 village during 2021 in an area of 0.20 ha. at farmer field with using bio-insecticide, pheromone trap and high yielding variety. The outcome of the demonstration motivated the farmer communities to replace their normal practices adopted. Mr. Satish kumar is very happy on improvement in their income, livelihood and sate forth example for other farmers.

Impact:- Mr. Satish Kumar is becoming one of the progressive and learned farmer for others with regard to popularization of IPM technology in Control of Shoot and fruit borer in brinjal crop to increase yield and profit of per unit area. This technology help in reduces in cost of production through IPM system. Total cost of production 49650.00, Total income earn Rs. 219800.00 and net income 170150.00.



Brinjal Crop Variety- Kashi Uttam

19. Use of halophilic Rhizobium bioformulation with high yielding variety of pea to enhance the production of field pea for doubling farmer's income: KVK Unnao

Situation analysis/ Problem statements:- Unnao district is a part of the North Eastern Plain Zone of Uttar Pradesh. Unnao district soils are alluvial, calcareous and salt affected (sodic soil). The average annual rainfall is about 1150 mm but it varies in various part of the district. The maximum and minimum temperature varies from 03.0 to 32.4 °C. Agriculture is the most important profession of people in this district. A progressive farmer Guru Dayal from the village Mirzapur Ajgaon, block Auras, district Unnao interacted with the scientists of KVK for the purpose of good productivity of field pea over a partially reclaimed sodic soil. The scientists of KVK Unnao visited their field and conducted need based survey of the village and accordingly conducted training programme for addressing the problem of poor productivity of field pea. He was growing field pea crop in about 0.5 ha area with the average productivity of 12 q/ha. After analyzing the his agricultural practice of field pea, it was found that improper selection of variety, imbalanced use of fertilizer, no seed treatment and inappropriate agronomical practices were the main cause of poor productivity. To get rid from the problem the farmer was selected for frontline demonstration (FLD) programme under technology demonstration of field pea through varietal replacement of HYV Aman with good agronomical practices under real farmer's conditions. To combat the causes of

yield erosion in field pea, VKS KVK Unnao selected to Mr. Guru Dayal and other progressive farmers of the district for harnessing field pea productivity

KVK intervention: *Rabi* season is typically important season in the district to produce cereals, pulses and oilseeds. KVK Unnao is putting its scientific efforts in achieving the goal of Govt. of India's aspiration for doubling of farmer's income by 2022. KVK Unnao scientists are regularly conducting training or creating awareness among the farmers for getting higher production of oilseed, pulses and cereals under this soil condition. Farmers were also made aware about new interventions in agriculture along with diversifying the agriculture and integrated farming approach. In district Unnao farmers are typically engaged in paddy based farming in *kharif* and wheat, fieldpea, field pea based farming in *Rabi* season. In this local farming system we can achieve goal of increasing the farm income through increase in productivity, area sifting from wheat to field pea and suggesting improved technical backup followed by timely delivery of input from the same unit of land and resources available to our farmers.

In this regards KVK assessed various technological interventions through Frontline Demonstrations Like, Blackgram, Greengram, Groundnut, chickpea etc in different areas of the district for further enhancement of the income of farmers. From the results of our trials, the field pea showed the potential to increase the income of farmers substantially by generating extra income per unit of land and inputs utilized. For intervention in *Rabi* season, KVK Unnao has taken initiatives on cultivation of field pea in the areas of its suitability to shift farmers from traditional way of farming from wheat to field . Results of field pea during the 2017-18 were very encouraging.

Output: - The field pea (Aman) was sown in November 2017 in the fields after paddy harvesting. It was recorded that yield of field pea with improved technology was 19.36 qt/ ha in comparison to farmers practices of having 14.24 qt/ ha. The 35.95 percent yield increased over the farmer practices.

Outcome: -

Economics of per ha Groundnut cultivation (Average of 100 farmers)

S.N	Particulars	Rate	Total cost per ha (in Rupees)
1	Field pea seed rate (pod)	Rs. 80/Kg	3,200 .00
2	Expenses for field preparation and field pea sowing /ha	Rs. 800 / hrs	4,000.00
3	Fertilizer expenses	Rs. 4500	4,500.00
4	Weeding charges	Rs. 2350	2,350.00
5	Irrigation expenses	Rs. 1000/irrigation	2,000.00
6	Insecticide & Pesticide	Rs.2000/litre	2,000.00
7	Labor use in harvesting	Rs. 150 / Day	3,500.00
8	Threshing and miscellaneous charges		4,500.00
		Total	22,850

Cost Benefit Analysis: The total cost of cultivation Rs. 22,850/- per ha with demo field while Rs. 19,650/- per ha under check plot with net profit of Rs. 82150/- per ha, and Rs. 49,950/ha Demo and check field, respectively. The cost: benefit ratio analyzed that the demo practice was higher (3.59:1) as compared to (2.54:1) farmer practice.

Total input cost used in Field pea cultivation is: Rs 22,850/- per ha

Total output achieved Field pea cultivation is: Rs 1,05,000/- per ha

Net profit under demonstrated technology: Rs 82150/ ha

Impact:- Most of the farmers of Unnao district were started cultivating Field pea crop during *rabi* season, due to the higher income generating from Field pea farmers' response was overwhelming, therefore more than five thousand hectare area were occupied by the field pea crop. With this promising technology the farming community is hopeful for revival of Field pea in Unnao district during the *rabi* season.



Field pea (Aman) at farmers field

20. Bio-fortified Wheat Variety DBW-187 (Karan Vandana): A successful cultivation: KVK Bijnour

Introduction: Technology (Variety) DBW-187 (Karan Vandana) is developed by the IIWBR, Karnal released during 2019. The variety **DBW-187** Rich in iron (43.1 ppm) in comparison 28.0 ppm iron in other varieties.

KVK intervention: The area under Wheat is about 1,55,0000 ha in district Bijnor. Commonly grown Mustard varieties are DBW-88, HD-2967, HD-3086, WH-1105 and other old varieties. Variety **DBW-187** was introduced and demonstrated by KVK Bijnor during Rabi-2019-20 through On Farm Testing & 2020-21 to 2021-22 at 71 farmer's field through FLD.

Output: The average yield at Farmers field was 71.00 qt per ha (78.00 qt. maximum yield per ha.) with cost of cultivation of Rs. 47516.00 per ha. The average net profit per ha was recorded Rs. 119825.00 per ha.

Outcome: This technology may be capable for increasing extra net return of farmers due higher yield with very rich nutritional quality, comparison to other varieties.

Impact: The area under this variety has now spread to more than 27500 ha in just one year. Farmers are all satisfied with the yield of this variety and also claim that it is better in quality. The successful farmer is **Sri Yaduvir Singh** Village – Athai Aheer, Block – Noorpur, District- Bijnor.



21. Successful Natural Farming as IFS model : KVK Ghaziabad

Due to increasing cost of cultivation & shrinking the cultivable land agriculture is not a profitable business. Most of the small & marginal farmers are not able to fulfill their fundamental needs due to having limited land. Among them Sh. Devendra Singh S/o Shri Surat Singh belonging to Milak Rawli village of district Ghaziabad is one who was also suffering with the same above said problem & He was so disappointed that he wanted to give up the farming because of having 2.0 acre land (not sufficient for his livelihood). Before 5 year ago he came in contact with Krishi Vigyan Kendra, Muradnagar, Ghaziabad in a training programme & suggested to go for integrated farming system. He connivance & started to make vermin compost & to do apiculture. He started his work with 10 unit (10x03 fit) of vermin compost & 5 boxes of apiculture. At first year he produced 100 Qtl. of earned Rs. 52600/- after five year in he earned Rs. 813000/- through vermin compost Rs. 540000/-, honey Rs. 198000/- and Worms Rs. 75000/-.

Now he is very happy and confident and thinking about to launch one another product vermin wash. Though he is making it but not at commercial scale.

SN	Year	Product	Qty. (Qtl./kg)	Rs.			
				Rate	Cost	Profit	Net Profit
1	2016-17	Vermi-compost	120 Qtl.	350/ Qtl.	3000	42000	39000
		Honey	100 kg	150 /kg	1400	15000	13600
Total					4400	57000	52600
2	2017-18	Vermi-compost	450 Qtl.	380/ Qtl.	17000	171000	154000
		Honey	270 kg	150 /kg	5000	40500	35500
Total					22000	211500	189500
3	2018-19	Vermi-compost	730 Qtl.	385/ Qtl.	35000	281050	246050
		Honey	685 kg	160 /kg	17500	109600	92100
Total					52500	390650	338150
4	2019-20	Vermi-compost	1050 Qtl.	400/ Qtl.	55000	420000	365000
		Honey	1030 kg	180 /kg	25000	185400	160400
		Worms	400 kg	200 /kg	-	80000	80000
Total					80000	685400	605400
5	2000-21	Vermi-compost	1400 Qtl.	450/ Qtl.	90000	630000	540000
		Honey	1200 kg	190 /kg	30000	228000	198000
		Worms	250 kg	200 /kg	-	50000	50000
Total					120000	908000	788000
Grand Total					275900	2210550	1934650



22. Successful Story-Bee Keeping for income generation: KVK Shahjahanpur

Introduction: Sri Omendra Vikram Singh S/o Sri Mahipal Singh, Village- Nagariya Bujurg, Block-Powayan, Tehsil- Powayan, Shahjahanpur

KVK intervention: Five years before he started honey bee unit with 20 boxes. In present in his unit 80 boxes are in use with successful Entrepreneurship. KVK Scientists visited honey bee unit and under their guidance technical updating of knowledge is provided.

Output & outcome: The farmer used to get annual income of Rs. 312000.00 from Bee Keeping.

Impact: Farmers appreciated the technology it gave an additional income of Rs. 258000.00

Performance of Technology vis-a-vis local check (Increase in productivity and returns)

Before Intervention

Components	Number	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Bee Keeping	20	600Kg	54000.00	36000.00
Total			54000.00	36000.00

Status in 2021

Component Description	Period 2020-21				% increase over base year	
	Number	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)	Production	Income
Bee Keeping	80	2400kg	312000.00	212000.00	300	488.88
Total			312000.00	212000.00	300	488.88



Chapter-9

HRD AND PUBLICATIONS**9.1 HRD AND PUBLICATIONS BY ATARI**

ICAR-ATARI, Kanpur organized 6 training programmes, 10 workshop/meetings/seminars and 11 participation in workshop/conferences and Kisan melas at ATARI level. Most of the programmes were organised by virtual mode. A total 28 publications have been developed by the ICAR-ATARI, Kanpur including research papers (12), book chapter (8), popular article (1), training manual (2), technical reports (1), news letters (4).

9.1.1 Training Programmes

1. "Sensitizing Extension Professionals for Successful Livestock Farming Models to Develop Self-reliant Farmers" organized virtually in coordination with KVK Bareilly and ICAR-ATARI, Kanpur (19-20 Feb., 2021)
2. NARI (Nutri-Sensitive Agricultural Resources and Innovation) organised virtually by ICAR-ATARI, Kanpur (7-8 April, 2022)
3. 'Role of Agroforestry in Increasing Income and Environment Protection' organized virtually in incoordination with KVK Lucknow & ICAR-ATARI, Kanpur (5.6.2021)
4. Approaches for Protected Cultivation was organized virtually by ICAR-ATARI Kanpur (29 June 2021)
5. Capacity Development of Subject Matter Specialists organized virtually by ICAR-ATARI, Kanpur (9.07.2021)
6. 'Ground nut production constraints and their management in Bundelkhand region : Challenges and opportunities' organized virtually in co-ordination with KVK Jhansi and ICAR-ATARI, Kanpur (5.8.2021)

9.1.2 Workshops/meetings/seminars organised

1. Webinar on Farms Act 2020: Implication for Farmers' Interest organized by ICAR-ATARI Kanpur on 18th January 2021.
2. Online Annual Review Workshop of Farmers First Project at ICAR-ATARI, Kanpur on 28th January 2021.
3. Online Review Workshop of Crop Residue Management Project by ICAR-ATARI Kanpur on 04th February 2021.
4. Online Annual review workshop of NICRA project organized by ICAR-ATARI Kanpur on 28th May 2021.
5. Online workshop for Kharif preparation for KVKs organized by ICAR-ATARI Kanpur on 5th June 2021.
6. 28th Annual Zonal Workshop of KVKs organized by ICAR-ATARI Kanpur on 15-17th June 2021
7. National webinar on 'Preparedness for Monsoon 2021 Kharif Season' was organized by ICAR-ATARI Kanpur on 06th July 2021.

8. Review workshop of KVKs for Gramin Krishi Mausam Seva Project organized by ICAR-ATARI Kanpur on 05th August 2021.
9. State Level Review workshop on CFLD (Pulses/Oilseed) & Pulses Seed Hubs organized by BUAT Banda and ICAR-ATARI Kanpur on 22-23rd November 2021 at BUAT, Banda.
10. Online Review workshop of CRM KVKs organized by ICAR-ATARI Kanpur on 18th December 2021.

9.1.3 Participation in workshops & conferences & kisan melas etc

1. Online Participation in 92nd Annual General Meeting of ICAR 27th January 2021.
2. Participation Webinar organized on 'Entrepreneurship Development Opportunities on Post Harvesting Technology' organized by Navik Agri-Business Incubation Center, ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (ICAR-NIVEDI) Bangalore on 29th January 2021.
3. Online participation in Inauguration ceremony of National Horticulture Fair 2021 On 08th February 2021.
4. Participation in CRM Mela at KVK Raebareli on 24th February 2021.
5. Participation in Online workshop to provide information for the FPOs organized by the National Cooperative Development Corporation (NCDC) on 5th March 2021.
6. Participation in 'Field Day and Farmer-Scientist Seminar' organized under the Farmer First Project by ICAR-Indian Pulses Research Institute, Kanpur on March 27th, 2021.
7. Online participation in State Level Kharif Productivity Seminar-2021 on 31 May 2021.
8. Online Participation program on 'Food and Nutrition for Farmers' was organized by the Indian Council of Agricultural Research, New Delhi under on 26th August 2021.
9. Participation in Meeting of the High Level Monitoring Committee on CRM under the chairmanship of Secretary DARE and Director General ICAR on 26th November 2021
10. Participation in webinar organized on 'Sustainable Development in Dairy Sector-Clean Milk Production' on the occasion of National Milk Day 26th November 2021.
11. Online participation in workshop on Natural Farming organized by NITI Aayog on 30th November 2021.

9.1.4 Publications

Research papers

1. Sah Uma, Dixit G.P., Kumar Hemant, Katiyar Mohit, Ojha Jitendra, Singh Vikrant, Dubey S.K and Singh N.P. 2021. Oilseed Production Performance in Bundelkhand Region of Uttar Pradesh: A Temporal Analysis, *Journal of Community Mobilization and Sustainable Development*, 16(2), 419-427.
2. Sah Uma, Dixit G. P., Kumar Hemant, Ojha Jitendra, Katiyar Mohit, Singh Vikrant, Dubey S. K. and Singh N. P. 2021. Dynamics of Pulse Scenario in Bundelkhand Region of Uttar Pradesh: A Temporal Analysis, *Indian Journal of Extension Education* Vol. 57, No. 4 (October–December), p:97-103.

3. Verma Ashwani Kumar, Singh V.K., Asha Kumari, Dubey S.K. and Verma Arjun Prasad. 2021. Constraints Perceived by the Members and Non-members towards Functioning of FPO-AKPCL in Kannauj District of Uttar Pradesh, *Economic Affairs*, Vol. 66, No. 2, pp. 335-341.
4. Dubey SK, Singh Atar, Singh AK, Pandey Sadhna, Singh Raghwendra, Pandey Aman Kumar and Singh Rajeev. 2021. Effect of COVID-19 lockdown on bovine economy in Uttar Pradesh, *Indian Journal of Animal Sciences*. 91 (5): 410-415
5. Mishra Abhishek, Yadav O.P., Dubey S.K., Kumar Naveen and Mishra Siddhant. 2021. Extent of use of ICT Tools for Accessing the Agricultural Information in Lucknow District of Uttar Pradesh, *Journal of Community Mobilization and Sustainable Development*, 15(3), 759-763.
6. Singh S.S. and Dubey SK. 2021. Farmer participatory research: Tools, policies and practices, *Indian Journal of Agronomy*, 66 (5th IAC Special issue): 288-300.
7. Singh Poonam, Kanaujia V.K., Dubey S.K. and Pandey Sadhna. 2021. Backyard Kitchen Garden as the Viable Tool for Nutritional Security of Rural Families: A Study from Kannauj District (U.P.), *Journal of Community Mobilization and Sustainable Development*, 15(3), 643-648
8. Priya Satya, Bishnoi Sitaram, Singh Sunita, Singh K.N., Ray Mrinmoy, Dahiya Shashi, Dubey Shantanu Kumar, Singh Atar, Mishra Prasannajit, Pattanaik Biswaranjan, Shankar Ravi, Rubeka, Yadav Monika, Pandey Jaya, Rai Vaibhav, Singh Swatantra Pratap, Mahapatra Subrat Kumar and Singh Premlata. 2021. Development and Standardization of Perception Scales for Farmers and Extensionists Regarding Impact of Climate Change on Nutrition, *Journal of Community Mobilization and Sustainable Development*, 16(1), 234-244
9. Verma Ashwani Kumar, Singh V.K., Dubey S.K., Upadhyay Sachchidanand, Singh O.P. and Akash. 2021. Socio-economic and Communicational Profile of Member and Non-member Farmers of FPOs in Uttar Pradesh, *Journal of Community Mobilization and Sustainable Development*. 16(1), 192-198
10. Dubey S.K., Singh Atar, Singh A.K., Chahal V.P., Singh Randhir, Mishra Anupam, Singh S.K., Singh S.S., Singh Lakhan, Tripathi A.K., Prasad Y.G., Kumar Anjani, Gowda M.J. Chandra, Deka B.C., Singh Rajbir, Pandey Sadhana and Singh Rajeev. 2021. Unanticipated Dividends of Technology Dissemination: Experiences of Cluster Frontline Demonstrations of Pulses (CFLD-P) in India, *Journal of Community Mobilization and Sustainable Development*, Vol. 16(1), 1-6.
11. Sah Uma, Dixit G P, Kumar Hemant, Ojha Jitendra, Katiyar Mohit, Singh Vikrant, Dubey S. K., Singh N. P. 2021. Performance of Millets in Bundelkhand Region of UP State, *Indian Society of Extension Education*, Vol 57, No 4
12. Sah, Uma, Verma, Prasoon, Pal, Jeetendra, Singh, Vikrant, Katiyar, Mohit, Dubey, Shantanu and Singh, N.P. 2021. Pulse Value Chains in India- Challenges and Prospects: A Review. *LEGUME RESEARCH - AN INTERNATIONAL JOURNAL*. doi: 10.18805/LR-4632.

Book chapters:

1. Kumar Virender, Singh Sudhanshu, Singh Balwinder, Craufurd Peter, Kumar Anurag, Munshi Sugandha, Kumar Ajay, Singh Madhulika, Veetil Prakashan Chellattan, Kumar Ashok, Kumar Pankaj, Dubey S.K., Singh Rajbir and Malik R.K. 2021. Implications of techniques of crop establishment on rice cultivation across states, In: *New Frontiers in Agricultural Extension*, Volume II, p:150-164

2. Singh Rajeev K., Singh Deepak K., Maurya Ravi Prakash, Singh Madhulika, Dar Shahnawaz R., and Dubey Shantanu. 2021. Technology adoption trends indicate limited adoption of new varieties: Focus should be on time of transplanting, irrigation and weed management in district Balia, Uttar Pradesh, In: New Frontiers in Agricultural Extension, Volume II, p:508-512
3. Craufurd Peter, Singh Sudhanshu, Kumar Virender, Singh Balwinder, Kumar Avinash, Panneerselvam Peramaiyan, Sharma Sachin, Dubey Shantanu, Kumar Anjani, Kumar Ajay, Ignatius Moben, Mohapatra Bidhan, Rajan Harshit, Kumar Prabhat, McDonald Andrew and Malik R.K. 2021. Irrigation management - a catalyst for sustained yield growth of rice New In: Frontiers in Agricultural Extension Volume II, p:114-149
4. Singh Balwinder, Craufurd Peter, Kumar Virender, McDonald Andrew, Singh Sudhanshu, Peramaiyan Panneerselvam, Poonia S.P., Kumar Ajay, Kumar Pankaj, Singh Deepak Kumar, Sharma Sachin, Singh Sunil, Laik Ranjan, Chilamkurthi Sreenivas, Kumar Prabhat, Ranjan Harshit, Dubey S.K and Malik R.K. 2021. Nutrient management in rice challenges on different use rates and ratios across states in India, In: New Frontiers in Agricultural Extension Volume II, p:79-113
5. Singh Omkar, Singh Deepak K., Singh Dinesh, Singh Dharmendra K and Dubey Shantanu. 2021. Timely transplanting and weed management are critical for breaking yield barriers in Ghazipur, In: New Frontiers in Agricultural Extension Vol.-II, P: 498-502
6. Srivastava Rajneesh, Kumar Ajay, Dubey Shantanu, Sharma Sachin, Singh Madhulika, Meena Kamlesh, Kumari Anuradha Ranjan, and Rai Ashok. 2021. Improve rice productivity through timely weed management and use of hybrids in Deoria district of Uttar Pradesh. In: New Frontiers in Agricultural Extension Vol.-II, P:492-497
7. Kumar Virender, Craufurd Peter, Singh Sudhanshu, Samaddar Arindam, Singh Balwinder, Panneerselvam P., Singh Madhulika, Dubey S.K, Kumar Ashok, Singh Rajbir, Singh Randhir, Veetil Prakashan Chellattan, Sharma Sachin, Ignatius Moben, Wasim Iftikhar, Ajay Anurag, and Malik R.K. 2021. Weed flora and weed management practices of smallholder rice farmers in key rice growing states of India. In: New Frontiers in Agricultural Extension Vol.-II, P: 185-214
8. Tomar S.K., Kumar Ajay, Dubey Shantanu, Singh Madhulika, Kumar Vipin, Rao A.P., Singh S.P., Singh Shailender K., Singh S.K., Rai Ashok, Singh Vipul. 2021. Adoption of hybrids with better irrigation and weed management are critical factor for enhancing productivity in Gorakhpur district (2021). In: New Frontiers in Agricultural Extension Vol.-II, P: 503-507

Popular Articles:

1. Singh Atar and Dubey S K. 2021. New generation delivery system for scaling up the agro-techniques, *Indian Farming* 71(11): 68-70

Training manual:

1. Malik R.K., Kumar Ashok, Kumar Virender, Kumar Ajay, Puniya S.P., MacDonald Andrew, Kayle Alvin, Cahan David, Singh Kumar Ajay, Singh Ashok Kumar, Ajay Anurag, Dubey Shantanu Kumar, Gautam US, Kumar Anjani, Sohane R.K., Khandai Suryakant, Kumar Pankaj, Kumar Anurag, Kumar Vipin, Singh Madhulika, Kumar Prabhat, Jat Ramdhan, Dar Shahnawaz Rasool, Singh Sudhanshu, Singh Mandhata, Shagwal Pradeep, Singh Deepak Kumar, Iftikhar Wasim, Parida Nabakishore, Mathys Cynthia and Dakshinamurthy V. .2021. Zero Tillage Wheat Hindi, www.csisa.org, p:1-75
2. Malik R.K., Yadav Ashok, Kumar Virender, Kumar Ajay, Poonia S.P., McDonald Andrew, Keil Alwin, Kahan David, Singh Ajay K., Singh Ashok K., Ajay Anurag, Dubey Shantanu, Gautam U.S., Kumar Anjani, Khandai Suryakant, Kumar Pankaj, Kumar Anurag, Kumar Vipin, Singh Madhulika, Kumar Prabhat, Jat Ram Dhan, Dar Shahnawaz Rasool, Singh Sudhanshu, Mishra

J.S., Sagwal Pardeep, Singh Deepak Kumar, Iftikar Wasim, Parida Nabakishore , Ignatius Moben, Mathys Cynthia and Dakshinamurthy V.2021. Zero Tillage Wheat (English),www.csisa.org;1-76

Technical Report:

1. Atar Singh, Sadhna Pandey, S.K. Dubey Raghwendra and S.N. Yemul (2020). Annual Progress Report of KVKs Published by ICAR-ATARI, Kanpur.

News Letters:

1. Atar Singh, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2021). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-22, pp 1-32.
2. Atar Singh, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2021). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-23, pp 1-114.
3. Atar Singh, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2021). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-24, pp 1-14.
4. Atar Singh, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2021). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-25, pp 1-13.

9.2 HRD AND PUBLICATIONS BY SAUs and KVKs

KVKs of different SAUs have also organised 26 programmes for 541 participants. Such programmes were organized at the University level to provide technological backstopping in frontier areas of the technologies. Detail of HRD Programmes are shown in Annex-4. In all 13955 publications were developed by all KVKs of Uttar Pradesh. Publications such as 47 books, 137 training manual, 101 book chapter, 272 research papers, 157 seminar papers, 197 technical bulletins, 664 technical reports and 12380 other publications including newsletters, abstracts etc has been published during the period under report. Details of publications by KVKs are shown in Annex-4.

Chapter-9

PROJECTS AND SPECIAL PROGRAMMES**(1) NICRA (National Innovation on Climate Resilient Agriculture)**

NICRA is aimed at making the farmers self reliant by use of climate resilient agricultural technologies and management of natural and manmade resources for sustaining agriculture in the era of climate change empowered by four modules of NICRA – natural resource management, improving soil health, crop production and livestock. Scope also covers specific environment assessment and generating meaningful products from crop residues with different energy conversion process.

Technical Achievements : Under technology demonstration components through various modules benefited 7140 farmers on 1357.32 ha area (202 Natural Resource Management, 2403 Crop Production, 240 Live stock & Fisheries, 85 Capacity Building (HRD) and 78 Extension Activities.)

Total 13 KVKs namely Kushinagar, Bahraich, Gorakhpur, Sonbhadra, Maharajganj, Gonda, Jhansi, Hamirpur, Chitrakoot, Muzaffarnagar, Baghpat, Kaushambi, Pratapgarh working on this project.

(2) ARYA (Attracting Rural Youths in Agriculture)

The main objective of this project is to (i) To attract and empower the Youth in Rural Areas to take up various Agriculture, allied and service sector enterprises for sustainable income and gainful employment in selected districts. (ii) to enable the Farm Youth to establish network groups to take up resource and capital intensive activities like processing, value addition and marketing and (iii) To demonstrate functional linkage with different institutions and stakeholders for convergence of opportunities available under various schemes/program for sustainable development of youth

Technical Achievements : No. of entrepreneurial units established: 374 (mushroom production-152, Fruits and vegetable processing units-4, Horticulture nursery-1, Poultry-67, Goat farming-62, Bee keeping-87, Vermicomposting-1); (2) No. of Training programs organised: 31; (3) No. of rural youth trained: 555; (4) No. of youth established units: 396

Total 10 KVKs namely Muzaffarnagar, Varanasi, Gorakhpur, Kaushambi, Pratapgarh, Saharanpur, Deoria, Basti, Ghazipur and Lucknow are working under this project.

(3) NEMA (New Extension Methodologies and Approaches)

This project is working on three objectives such as (i) To study the existing extension methodologies and develop new extension methodologies. (ii) To develop technology map for different agro-ecosystem (iii) To study the extent and determinants of adoption of selected improved NARS technologies.

NEMA project was started by ICAR with the collaboration of 19 Institutes in all over India. ICAR-ATARI, Kanpur is working in collaboration with IARI, New Delhi.

Technical Achievements: With the aim of Socio-economic Impact Evaluation of Pusa Basmati (PB-1509, PB-1, PB-1121, PB-1637, PB-1718, PB-1692) 66 villages were selected from 531 blocks (9 distt.). 1578 Household were selected to study the spread of technology.

Total 15 KVKs of Uttar Pradesh namely Saharanpur, Bijnor, Amroha, Badaun, Farrukhabad, Mathura, Ghaziabad, Muzaffarnagar, Mirzapur, Kasganj, Auraiya, Chandauli, Etah, Mainpuri, Aligarh were selected for data collection in the Uttar Pradesh with the help of interview schedule developed by IARI, New Delhi. Working period for this project is 2018-21.

(4) TSP/KSHAMTA (Tribal Sub Plan/ Knowledge system & Home based Agricultural Management in Tribal Areas)

This scheme is being run for tribal upliftment in Tribal dominated districts. In order to create awareness among farmers, various programme like FLD, OFT, trainings, seed production, planting material production, capacity building and extension activities are being organised by KVKs. Major goal of this programme is to improve the livelihood of tribal farmers. A brief achievements under TSP programme is as under -

(i) Farmers Training (Courses: 27, Participants: 748), (ii) Women Farmer Training (Courses: 19, Participants: 575), (iii) Rural youths (Courses: 11, Participants: 315), (iv) Extension Personnel (Courses: 6, participants: 154), (v) Involvement of farmers in (OFT: 52, FLD: 3570, mobile advisories: 1.55 lakh farmers), (vi) Participation in extension activities: 847, (vii) Production of seed: 800 q, (viii) Production of planting materials: 0.15 lakh, (ix) Production of Livestock strains: 0.01076 lakh, Soil testing: 197

A total of 14 villages were adopted under KSHAMTA programme. Also 5822 farmers are benefitted by providing 75 training programmes and 47 demonstrations under this programme.

Total 8 KVKs namely Chitrakoot, Lakhimpur Kheri, Sonbhadra, Balrampur, Bahraich, Jhansi, Mahoba, Lalitpur are selected for this project.

(5) CRM (Crop Residue Management)

Aim of this scheme, is to protect the environment from pollution, microbial flora and fauna of the soil and carbon deterioration by burning paddy, straw and husk especially in paddy and wheat growing areas, the residues are suppressed with the help of high-tech agricultural equipments such as happy seeder, paddy straw chopper/shader/mulcher, reversible M B plough, zero till drill and rotavator and mixed in the field so that productivity of farm land may be improved and environment may be protected from the pollution.

Technical Achievements: (i) Total 169 awareness camps conducted and 15952 farmers are benefitted (ii) Total 108 training programmes organised and 2472 farmers were benefitted (iii) Total 4411 demonstrations conducted covering an area of 1525.60 ha (iv) Schools & colleges mobilized through essay completion, painting, debate etc and 213 activities conducted by participating 11267 students. (v) Total 86 Kisan Meals organised and 16787 farmers are benefitted. (vi) Total 431 Column / Articles published in newspaper and magazines (vii) 1814 wall writings, 274 Hording fixed at mandi/ road side/ market/ schools/ petrol pump/ panchayat etc, 1497 Poster/ Banner placed at different location/ buses etc. (viii) Total 131722 publicity material such as leaflets/ pamphlets etc. distributed (ix) Total 134 made awareness through TV & Radio (x) 31 exposure visit conducted by benefitting 1283 farmers (xii) total 47 field days organised by participating 1283 farmers (xiii) Total 5430 advertisement published in Print media. (xv) Award given for village/ Gram Panchayat for achieving zero stubble burning.

KVKs involved: 23 KVKs of Uttar Pradesh namely Agra, Aligarh, Azamgarh, Bagpat, Bareilly, Bijnor, Budaun, Bulandshahar, Etah, Firozabad, G.B. Nagar, Ghaziabad, Hathras, Jaunpur, Mathura, Meerut, Moradabad, Muzaffarnagar, Pilibhit, Rampur, Saharanpur, Shahjahanpur, Varanasi are involved.

(6) ASCI Programme (Agriculture Skill Council of India)

Agriculture Skill Council of India (ASCI) working under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE). ASCI works towards capacity building by bridging gaps and upgrading skills of farmers, wage workers, self-employed & extension workers engaged in organized / unorganized segments of Agriculture & Allied Sectors. Under this program, skill based training is being provided to farmers by registered trainers of KVKs. So that they can establish and set up their own business.

Technical Achievements: Under ASCI programme total 36 KVKs organised 30 training programmes benefitting 793 participants on Vermicompost, Dairy farming, Mushroom farming, Beekeeping, Poultry, mechanization, Forest nursery, Quality seed production etc.

Under this programme total 42 KVKs and 6 ICAR institutes namely Bahraich, Basti, Varanasi, Siddharthnagar, Sonbhadra, Balrampur, Chandoli, Jaunpur, Fatehpur, Kanpur Dehat, Jhansi, Mahoba, Hamirpur, Jalaun, Lalitpur, Banda, Mathura, Bijour, Saharanpur, Meerut, Muzaffarnagar, GB Nagar, Sultanpur, Mirzapur, Gonda, Chitrakoot, Allahabad, Pratapgarh, Unnao, Lucknow, Ghazipur, Sitapur-I, Kaushambi, Auraiya, Sitapur-II, Gorakhpur-II, IIPR, Kanpur, IISS, Mau, IGFR, Jhansi, NBAIM, Mau, NBFGR, Lucknow, IVRI, Bareilly are involved.

(7) Seed Hub Programme

For the purpose of maintaining self-sufficiency in seeds, ICAR has initiated for preparation of seed hubs of pulses and oilseeds, so that seed of novel varieties may be produced at agricultural farm and farmers field and processed under the supervision of scientists and will be made available at the appropriate cost. This scheme is very much beneficial in providing prices to the farmers more than market price or MSP along with bonus on the purchase of their seeds and making it available after processing. Under this scheme, KVKs districts have been selected.

Technical Achievements: During 2021 total 2288.54 quintal pulse seeds (blackgram 32.50 q, greengram 32.70 q, chickpea 1108.00 q, fieldpea 818.60 q and lentil 296.74 q) are produced by 8 seed hubs.

KVKs involved: 8 (Deoria, Hamirpur, Jalaun, Chitrakoot, Lalitpur, Mahoba, Fatehpur and Mirzapur)

(8) Aspirational Districts Scheme

Above eight districts have been selected to promote organic farming by vermi and NADEP units on large scale. Sufficient budget has been allotted to KVKs for providing trainings, seeds and plants of vegetables and fruits to enhance their income.

Technical achievements: Under this programme different kinds of activities taken place such as

- (i) Training: Session (49), Number of Farmers (1155), Officers / Staff (90)
- (ii) Seed and Plant Distribution program: Seed Distribution (178 q), Planting material distributed (69530), Farmers benefitted (1035), Officer / Staff involved (54)
- (iii) Animal husbandry & fish distribution programme: Medicine for control of parasite (56), Distribution of Mineral mixture (51), Farmers benefitted (80), Officers / Employees involved (29).

KVKs involved: 8 (Sonbhadra, Fatehpur, Chitrakoot, Siddharthnagar, Balrampur, Chandauli, Bahraich and Shravasti)

(9) NARI (Nutrition- sensitive Agricultural Resources and Innovation)

NARI is a flagship programme of AE division of ICAR which was conceptualized to promote nutri gardens, biofortified crops and varieties and Nutri - thali. ICAR is working with the Ministry of women and child development to take the benefit of this project to farm women, farmers and other stakeholders across the country. following activities are being conducted under this programme on priority.

1. Establishment of one nutri - garden in each KVK and its maintenance throughout the year.
2. Conducting training programmes by each KVK involving 100 Aganwadi workers.
3. Preparation of nutrition map of the district in terms of location specific commodities grown and development of different nutri thali recipes in consultation with experts and sharing the map and nutri thali recipes to stakeholders.

ICAR-ATARI has started NARI programme in all KVKs for empowerment of women farmers. During the year under report, following five major activities were taken place.

- (i) Trainings (courses: 224, Participants: 4714)
- (ii) Extension programmes (Number 187, Participants: 8886)
- (iii) Nutritional Garden units established: 1071 and 1160 farmer benefitted
- (iv) Bio-fortified crops: 98 and 2233 farmers benefitted
- (v) Value addition: 135 and 1844 farmers were benefitted.

(10) SCSP (Schedule Caste Sub Plan)

The main objective of the scheme is to give a thrust to family oriented schemes of economic development of SCs below the poverty line, by providing resources for filling the critical gaps.

Technical achievements: Following activities have been conducted under SCSP programme –

- (i) Farmers Training : 1177 and 12808 beneficiaries
- (ii) On farm trails: 227
- (iii) Frontline demonstrations: 6404
- (iv) Mobile advisories to the farmers: 19632
- (v) Participants in extension activities: 35436
- (vi) Production of seed: 1260.56 q
- (vii) Production of Planting material: 1.67 lakh
- (viii) Production of fingerlings: 2.03 lakh
- (ix) Testing of Soil, water, plant, manures samples: 2639

KVKs involved: 10 (Faizabad, Sonbhadra, Chandauli, Raebareili, Hardoi, Mirzapur, Unnao, Lucknow, Sitapur (I & II), Kaushambi)

(11) SBA (Swachha Bharat Abhiyaan)

Swachh Bharat Abhiyan is being organised every Saturday in all KVKs and ICAR-ATARI, Kanpur under which awareness regarding cleanliness is being created among common public so that they can understand their responsibility towards cleanliness. Under this programme all 89 KVKs worked on total 130 adopted villages including their office campus. Major works are included in this programmes are - Cleaning of village, Drainage, Road, Campaign for swachhta action plan in village, Nukar natak for swachhta, In rural areas nearby KVK campus the training has been given to the farmers about cleaning and their importance for healthy environment, Awareness campaign on cleanliness, Awareness campaign on water management, Awareness campaign on Waste management, To create awareness camp in school & village, Create awareness about Vermi compost and NADEP, Awareness programme on Cleanliness, Training on Crop residue management and animal Waste management, Training Kitchen waste management, Introduce waste decomposer techniques in adopted village, to Aware the farming community regarding swachhta Abhiyan, To aware the school children regarding the use of safe water for drinking, to aware the cleaning of houses and surrounding, training Kitchen waste management, awareness programme conducted at village level for cleaning around house of farm families, management of decomposable waste by converting it in compost, awareness programme for school students

Technical Achievements under Swachha Bharat Abhiyan:

S.No.	Items	No. of Programmes	No. of persons participated
1	Toilet maintenance	83	1400
2	Road, drain cleaning	184	3671
3	Garbage disposal	115	1851
4	Door to door awareness	158	2573
5	Awareness campaign	282	8628
6	School Drama	5	525
7	School rally	26	2854
8	Writing painting slogans	50	949
9	Composting	54	1064
10	Other	113	1790
Total		1070	25305

12. Farmers FIRST Project

In order to improve agricultural productivity and livelihood of small and marginal farmers, ICAR has started the scheme in its selected research institutes. Under this scheme, work is done in the risk prone areas to increase production and productivity and reduce the losses in agriculture with the help of agricultural scientists.

Technical achievements: During the year 2021-22 all the seven institute together conducted 3165 numbers of demonstration on 5200 animal & 4960 birds, 2600 fingerlings by covering 8335 Farmers in the state of Uttar Pradesh. Total 546 extension activities were also conducted which benefitted 4480 Farmers.

Total 7 ICAR institutes namely ICAR-CISH, Lucknow, ICAR-IVRI, Bareilly, ICAR-IGFRI, Jhansi, ICAR-IIFSR, Meerut, ICAR-CIRC, Meerut, ICAR-IIPR, Kanpur, ICAR-IIVR, Varanasi are working on this project.

13. MGMG (Mera Gaon Mera Gaurav)

An innovative initiative “Mera Gaon Mera Gaurav” has been planned to promote the direct interface of scientists with the farmers to hasten the lab to land process. The objective of this scheme is to provide farmers with required information, knowledge and advisories on regular basis by adopting villages. The participation of small and marginal farmers in Indian agriculture is very important. Small farmers put forth their desire on various forums to have timely information on investment in agriculture, loans, availability of other basic amenities, market rates, extension activities and facilities provided by different agencies, new research findings and technologies, etc.

Technical achievements: Total no. of groups or team formed-61, Number of Scientists involved-277, Number of village's covered-346, Number of field activities conducted 295, Number of messages /Advisory send-439, Number of Farmers benefitted -1490.

Total 13 ICAR institutes and DU namely ICAR-IISR Lucknow, CISH Lucknow, C.S.S.R. Lucknow, SHUATS Allahabad, B.H.U. Varanasi, PDDSR Mau, I.I.P.R. Kanpur, CAFRI Jhansi, I.G.F.R.I. Jhansi, BPKS Almora, IISWCRT Agra, CARI Bareilly, IVRI Bareilly and NBAIM Maunath Bhanjan are working on MGMG project.

SPECIAL PROGRAMMES



Vegetable kit distribution under SCSP programme:
KVK Jalaun



Berseem seed distribution under NICRA programme:
KVK Hamirpur



Honey Bee Unit established under SCSP programme:
KVK Kaushambi



Demonstration of Happy Seeder under CRM project:
KVK Jaunpur-I



Swaccha Bharat Abhiyan: KVK Mahoba



Training & Distribution of Spry machine under SCSP
Programme: KVK Lakhimpur Kheri-II



Training programme under CRM project: KVK Agra



Programme of PM Kisan release fund by Hon'ble PM:
KVK Jaunpur-I

SPECIAL PROGRAMMES



SCSP Programme: KVK Jhansi



SCSP Programme: KVK Mahoba



Field Day on Bajra crop under SCSP project:
KVK Kaushambi



Demonstrations of Agril. Machinery under CRM
project: KVK Pilibhit



Organised swacchata Pakhwada under Swaccha
Bharat Abhiyan: KVK Mahoba



Distribution of seeds under SCSP programme:
KVK Kaushambi



Awareness programme conducted for Farmers under
SCSP programme: KVK Jaunpur-I



Programme on world water day conducted : KVK
Chandauli

Chapter-10

STATUS OF INFRASTRUCTURE, STAFF & BUDGET**12.1 INSTRUCTURE FACILITIES AT KVK**

Most of KVKs are having their own infrastructure facilities, in Uttar Pradesh availability of infrastructure are Administrative Building (67), Farmers Hostel (59), Staff Quarters (59), Soil Testing Labs (44), Soil Testing Kits (104), IFS (26), Demo Units funded by ICAR (211), Demo Units funded by others (56), e-connectivity (26), Technology Information Unit (23) and Four wheeler (68), Two wheeler (59), Tractor (66). Physical status of infrastructure facilities at a glance are shown in following Table 12.1.

Table 12.1: Physical status of infrastructure at a glance

S. No.	Name of Infrastructure	Host Institutions								Total KVKs (89)
		SAUs					ICAR KVKs	Edn KVKs	NGO KVKs	
		NDUAT, Ayodhya (25)	BUAT, Banda (7)	CSAUAT, Kanpur (15)	DUVASU, Mathura (01)	SVPuat, Meerut (20)				
1.	Administrative Building	16	6	13	1	12	5	1	13	67
2.	Farmers Hostel	15	3	11	1	13	4	1	11	59
3.	Staff Quarters	16	5	10	1	13	3	1	10	59
4.	Threshing Floor	15	2	5	1	13	0	1	5	42
5.	Tubewell	17	6	13	1	13	5	1	11	67
6.	Drip Irrigation	6	0	1	0	0	5	0	3	15
7.	Soil & Water Testing Lab	14	2	5	1	10	2	1	9	44
8.	Soil Testing Kits	6	12	27	1	23	4	3	28	104
9.	Fencing	13	2	9	1	13	3	1	8	50
10.	Rain Water Harvesting Structure	0	0	0	0	1	0	0	3	4
11.	Demo Unit funded by ICAR	54	9	33	4	37	19	1	54	211
12.	Demo Units funded by others	19	6	11	1	10	0	2	7	56
13.	Integrated Farming System (IFS)	1	6	1	1	6	4	0	7	26
14.	Minimal Processing Facility	0	0	0	0	0	0	0	1	1
15.	e-Connectivity	0	6	1	1	7	3	1	7	26
16.	Carp Hatchery	0	0	0	0	0	0	0	3	3
17.	Solar Panel	3	2	4	0	0	1	0	1	11
18.	Technology Information Unit	0	4	0	1	10	2	0	6	23
19.	Mini Seed Processing Facility	0	0	0	0	0	0	1	3	4
20.	Four wheeler	22	6	12	1	11	5	1	10	68
21.	Two wheeler	21	4	14	1	14	2	1	13	70
22.	Tractor	17	4	13	1	13	5	0	13	66
23.	Genset	0	1	1	0	2	2	0	1	7

12.2 STATUS OF STAFF POSITION

12.2.1 Staff position of ICAR-ATARI, Kanpur

ICAR-ATARI, Kanpur have filled up 13 staff personnel out of total 20 vacancies. Post of RMP is vacant. Out of 6 sanctioned positions in scientific cadre, 5 positions (1 PS, 3 Sr. Scientist and 1 Scientist) are filled up. 1 RMP and 1 Scientist positions are lying vacant. Out of 9 positions in administrative cadre, 5 are filled up and 4 positions (AF&AO-1, LDC-1, PS-1, Steno-1) are lying vacant. 1 Skilled Support Staff is filled and 1 post is vacant. Position wise details are given in following Table 12.2.1.

Table 12.2.1: Status of staff position in ICAR-ATARI, Kanpur

Sr.No.	Positions	Filled	Vacant	Total
1	RMP	0	1	1
2	Principal Scientist	1	0	1
3	Sr. Scientist	3	0	3
4	Scientist	1	1	2
5	Technical	2	0	2
6	Administrative	5	4	9
7	Supporting	1	1	2
Total		13	7	20

Table 12.2.2: Details of ICAR-ATARI, Kanpur staff

Category	Name of employee with designation
RMP	1. Dr. U.S. Gautam, Director
Scientific Staff	1. Dr. Atar Singh, Principal Scientist (Agronomy) 2. Dr. Shantanu Kumar Dubey, Principal Scientist (Agril. Extn.) 3. Dr. Sadhna Pandey, Principal Scientist (H. Sci. Extn.) 4. Dr. Raghendra Singh, Principal Scientist (Hort.)
Technical Staff	1. Mr. Yemul Sanjeev N., Chief Technical Officer (Computer) 2. Mr. Pramod Kumar Rai, Technical Officer (Driver)
Administrative Staff	1. Mr. Ram Bodh Verma, Asstt. Administrative Officer 2. Mr. Raman Tripathi, Assistant. 3. Mr. R.K.P. Sinha, Assistant 4. Mr. Sunil Kumar Singh, U.D.C. 5. Mr. Shravan Kumar Yadav, L.D.C.
Supporting Staff	1. Mr. Bal Kishun, Skill Supporting Staff

12.3 Staff Position in KVKs of Uttar Pradesh

Out of total sanctioned post (1424), KVKs have filled 907 posts including Head (64), Scientist (327), Programme Asstt. (151), Administrative (122), Auxiliary (125), Supporting (118). Filled positions are 63.69 % and vacant post lying as 36.31 %. Category wise staff positions are given in Table 12.3.

Table 12.3: KVK staff Position at a glance

Category	Sanctioned	Filled	Vacant
Head	89	64	25
Scientist	534	327	207
Programme Asstt	267	151	116
Administrative	178	122	56
Auxiliary	178	125	53
Supporting	178	118	60
Total	1424	907	517
Total % filled		63.69 %	36.31 %

12.4 STATUS OF BUDGET

During the financial year 2020-21, an amount of Rs. **14294.00** lakh was utilized/released against the allotted budget of Rs. **14296.49** lakh.

Table 12.4.1: Head wise allocation funds for ICAR-ATARI, Kanpur and KVKs of U.P. for 2020-21

(Rs in lakh)

S. No.	Heads	ATARI	KVK	DE	Total
A	Revenue				
i)	Pay & Allowances	186.00	11971.37	0.00	12157.37
ii)	Pension	1.01	0.00	0.00	1.01
iii)	T.A.	1.20	89.00	3.40	93.60
iv)	H.R.D.	0.50	23.35	3.90	27.75
v)	Contingency	56.11	603.65	22.00	681.76
	Total (A)	244.82	12687.37	29.30	12961.49
B	Capital				
i)	Furniture/Equipment	1.18	0.00	0.00	1.18
ii)	Works	0.00	605.82	0.00	605.82
iii)	Library	0.00	0.00	0.00	0.00
iv)	Vehicle	0.00	8.00	0.00	8.00
	Total (B)	1.18	613.82	0.00	615.00
C	Revolving Fund	0.00	15.00	0.00	15.00
D	TSP - Capital	0.00	165.00	0.00	165.00
	TSP - General	0.00	141.00	0.00	141.00
	Total (D)	0.00	306.00	0.00	306.00
E	SCSP - Capital	0.00	250.00	0.00	250.00
	SCSP - General	0.00	149.00	0.00	149.00
	Total (E)	0.00	399.00	0.00	399.00
	Total (A+B+C+D+E)	246.00	14021.19	29.30	14296.49

Table 12.4.2: Actual Expenditure/Release for 2020-21

(Rs in lakh)

S. No.	Heads	ATARI	KVK	DE	Total
A	Revenue				
i)	Pay & Allowances	185.79	11971.37	0.00	12157.16
ii)	Pension	0.00	0.00	0.00	0.00
iii)	T.A.	1.02	89.00	3.40	93.42
iv)	H.R.D.	0.30	23.35	3.90	27.55
v)	Contingency	55.22	603.65	22.00	680.87
	Total (A)	242.33	12687.37	29.30	12959.00
B	Capital				
i)	Furniture/Equipment	1.18	0.00	0.00	1.18
ii)	Works	0.00	605.82	0.00	605.82
iii)	Library	0.00	0.00	0.00	0.00
iv)	Vehicle	0.00	8.00	0.00	8.00
	Total (B)	1.18	613.82	0.00	615.00
C	Revolving Fund	0.00	15.00	0.00	15.00
D	TSP - Capital	0.00	165.00	0.00	165.00
	TSP - General	0.00	141.00	0.00	141.00
	Total (D)	0.00	306.00	0.00	306.00
E	SCSP - Capital	0.00	250.00	0.00	250.00
	SCSP - General	0.00	149.00	0.00	149.00
	Total (E)	0.00	399.00	0.00	399.00
	Total (A+B+C+D+E)	243.51	14021.19	29.30	14294.00

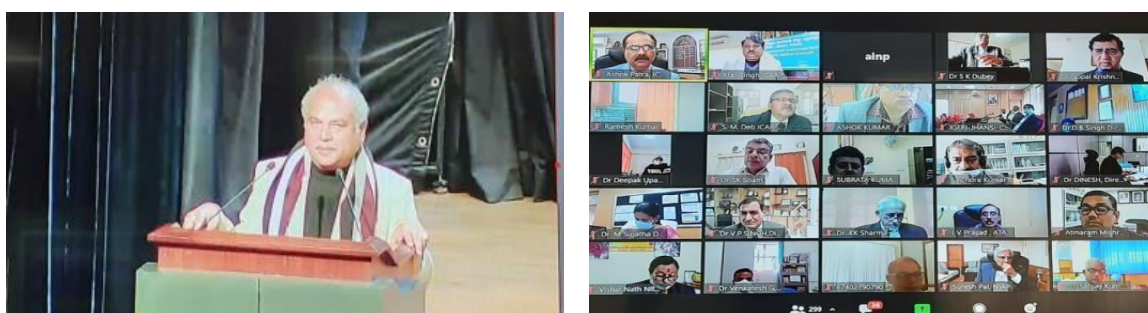
Chapter-11

SPECIAL PROGRAMMES AND EVENTS ORGNISED IN HYBRID MODE

During the year 2021, ICAR-ATARI, Kanpur organised following different events which includes both virtual and physical mode.

Meeting by Hon'ble Agriculture Minister (1.1.2021)

On 1st January 2021 The Hon'ble Minister of Agriculture and Farmers Welfare, Government of India, Shri Narendra Singh Tomar, Hon'ble Minister of State for Agriculture, Shri Purushottam Rupala and Shri Kailash Chaudhary held an online meeting with Director General of ICAR, Deputy Director General, Director and Scientists of ICAR institutes.



In the meeting, the Hon'ble Minister said that on the first day of 2021, we should make a resolution today and get ready to fulfill it. The Krishi Vigyan Kendras are playing their role well for the development of agriculture and are equally respected by the farmers. To see how the contribution of ICAR and the Ministry should be made in strengthening KVKs. There are many success stories, they should be spread everywhere. How to increase production at low cost, development of storage capacity, strengthening the market system. Production and productivity have increased, attention should be drawn to income growth.

Dr. Trilochan Mohapatra, Secretary DARE and Director General ICAR said that 2020 was a catastrophic year for us. There is a ray of hope in 2021. The last year has been a struggle for all. 270 varieties has been developed, 18 varieties are biofortified. On 16 October, the Prime Minister revealed 17 varieties. World Soil Day was celebrated on 5 December 2020 and the Digital India Award was given by Hon'ble President on 30th December. Many new KVK and ICAR buildings were inaugurated. Institutes and Krishi Vigyan Kendras were connected through online mediums during Covid-19. Advisories for farmers were also issued by Krishi Vigyan Kendras. Vaccine has been made for fish in fisheries. 16 new species of fish have been developed. The field of sea-food has been expanded. 55 lakh people have been trained. 1.2 lakh farmers have been connected with telecommunication. IT Sector should be used more and more.

Online meeting of NICRA project (6.1.2021)

On 06th January 2021 Online meeting of KVKs NICRA project was organized by ICAR-ATARI Kanpur to provide information about the progress of budget and video film making.

Webinar on Farm Act 2020 : Implication for Farmers' Interest (18.1.2021)

On 18th January 2021, 'Webinar on Farm Act 2020: Implications for Farmers' Interest' was organized by ICAR-ATARI, Zone-III Kanpur to spread awareness and give information about New Farm Acts. In this webinar Dr. A.K. Singh-Deputy Director General (Agril. Ext.) was the guest speaker. Chief

Organizer Dr. Atar Singh, Director, ICAR-ATARI, Kanpur shared that 600 farmers and 100 scientists from 30 Krishi Vigyan Kendras of Uttar Pradesh participated in the webinar.

Dr. A.K. Singh, DDG (AE), said that under the new agricultural laws, the traders will not be able to cheat farmers, and they will get assured price. Investment by private companies in the agriculture sector will increase, which will benefit in rapid development and improving economic condition of farmers. Under the F.P.O.s, 500-1000 farmers will produce and as a single source of contract, the purchase will be done by the company from them. Under the contract farming, farmer can refuse to sell, but not the merchant. APMC mandis are still not very good performing, especially in UP. Through the new laws, farmers will be exempted by 8% tax by the mandis.

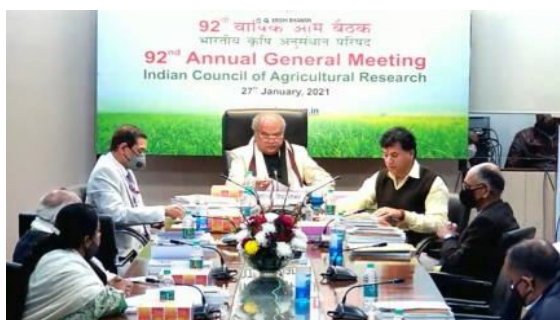


Republic Day celebration (26.1.2021)

On 26th January 2021, Republic Day Celebration was organized in ICAR-ATARI Kanpur. Certificates to winners and participants of Hindi Pakhwada were given on this occasion.



92nd Annual General Meeting of ICAR (27.1.2021)



On 27th January 2021, 92nd Annual General Meeting was organized by ICAR. In the meeting, Hon'ble Minister of Agriculture and Farmers Welfare, GOI, Shri Narendra Singh Tomar Ji said that the Government of India is constantly working to make the farmers self-reliant. If you set a strategy and you will get success, Organic farming is proving to be very beneficial for farmers. There is a need for better marketing. In milk production, machine production India will be either first or second. There is considerable research going on by

ICAR, and further research is required.

Honorable Minister of State for Agriculture Shri Kailash Chaudhary said that the Director General informed about the achievements of the previous year. Scientists established new dimensions to research. Earlier we used to import crops, now we have become self-sufficient. The farmers mainly need four things of improved variety of seeds, low cost, storage and marketing.

Dr. Trilochan Mohapatra Secretary DARE and Director General ICAR presented the achievements of ICAR at the Annual General Meeting. In this meeting all ICAR institute and 251 scientist were present.

Online Annual Review Workshop of Farmers First Project at ICAR-ATARI, Kanpur (28.1.2021)

On January 28th, 2021, a review workshop of the Farmer First Project was organized online by ICAR-ATARI Kanpur. The workshop was inaugurated by Dr. A. K. Singh, DDG (AE), ICAR. He said that this project is for the benefit of farmers, under this project all kinds of technologies and new innovations in the field of farmers should be demonstrated and other farmers can also join it. This project is going on in 7 ICAR institutes in Uttar Pradesh where the technology of the institutes is being demonstrated while doubling the income of farmers.



Online Review Workshop of Crop Residue Management Project (4.2.2021)

On 04th February 2021, online review workshop of Crop Residue Management (CRM) project was organized by ICAR-ATARI Kanpur. In workshop 23 Krishi Vigyan Kendras under SVPUA&T Meerut, CSAUA&T Kanpur, ANDUA&T Ayodhya, associated with the project participated. On this occasion, Dr. Atar Singh, Director ICAR-ATARI, Kanpur, explained how the productive capacity of the land can be increased and air pollution can be reduced by managing crop residues using the machines like Happy Seeder, Super Seeder, Mulcher, Baler, Chaper etc.



Review workshop of CFLD Pulses-Oilseed project (6.2.2021)

On 06th February 2021 a Review workshop of CFLD Pulses-Oilseed project was organized by ICAR-ATARI Kanpur to review the progress of project and to demand additional remaining area by KVKs. The workshop was chaired by ICAR-ATARI Kanpur Director Dr. Atar Singh. A presentation was made to show the status and progress of the budget. A total of 69 participants joined online including Director Extension of the University of Agriculture and Technology Ayodhya.



Inauguration ceremony of National Horticulture Fair 2021 (8.2.2021)

On 08th February 2021 The National Horticulture Fair 2021 organized by ICAR-Indian Institute of Horticultural Research, Bangalore was inaugurated by Respected Sri Sri Ravi Shankar Ji.

On the inauguration ceremony of National Horticulture Fair 2021, Shri Sri Ravi Shankar Ji said that our scientists are the pride of the country who are constantly working hard and bringing new technologies to double the income of farmers. Farmers have to adopt such techniques to be more a product of agriculture. Earlier, there used to be natural farming in India, but now we have almost forgotten to do natural farming. Natural farming is emphasized in every country. *Rishi Krishi* means natural agriculture will have to be promoted.

On this occasion, Dr. Trilochan Mohapatra, Secretary DARE and Director General ICAR launched the 'Arka Vyapar' app. Through this app, traders can directly connect with the farmer without any middleman. Director of ICAR-Indian Horticultural Research Institute, Bangalore, Dr. Dinesh also

said that the theme of this year's National Horticulture Fair 2021 is 'Startup India and Standup India'. Our objective is to develop entrepreneurship. Many advanced species were grown this year.



World Pulses Day celebration (10-2-2021)

On 10th February 2021 World Pulses Day celebration was organized by ICAR-Indian Pulses Research Institute, Kanpur. The Chief Guest in the program was the Hon'ble Minister of Agriculture and Farmers Welfare, Rural Development and Panchayati Raj, Government of India, Shri Narendra Singh Tomar. Honorable Minister of State for Agriculture Shri Kailash Chaudhary and Secretary DARE and Director General ICAR Dr. Trilochan Mohapatra were also present by the virtual mode.

On this occasion Hon'ble AM said that Pulses have a very important role in nutrition. Every child and adult in the country should have at least the right amount of dal roti and malnutrition should be eliminated. Pulses production has increased and dependence on imports has come down. The benefit of which is being given to the farmers. By doing scientific research, innovations are being passed on to the farmers. Honorable Minister of State for Agriculture, Shri Kailash Chaudhary said that 23 million tonnes of pulses have been produced. Malnutrition will be solved by the development of new varieties. The market is being promoted. Seed production is being encouraged.

Dr. Trilochan Mohapatra, Secretary DARE and Director General of Indian Council of Agricultural Research said that ICAR is promoting pulses. More than 1000 pulses varieties have been developed. In the last 5 years, 213 varieties have been developed. To provide improved seeds, 150 seed pulses of pulses have been established. Today, a buffer stock of 2 million tonnes is available in pulses.



Webinar on "Sensitizing Extension Professionals for Successful Livestock Farming Models to Develop Self-reliant Farmers" (19-20 Feb., 2021)

KVK ICAR-IVRI Bareilly organized a two-day webinar on "Sensitizing Extension Professionals for Successful Livestock Farming Models to Develop Self-reliant Farmers" on 19-20 February 2021 in collaboration with NABARD.



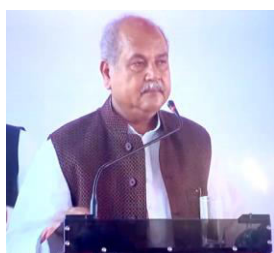
The chief guest of the program, Dr. AK Singh, Deputy Director General (Agricultural Extension) Indian Council of Agricultural Research, New Delhi, suggested that for 10-20 districts, various Krishi Vigyan Kendras should make plan for problems related to agriculture and animal husbandry in their respective districts to solve the problems. He emphasized on making various management tasks in the form of trials, such as home management, fodder management, water management, cow dung management, fodder, silage, etc. to create

models to increase the quality and quality of management, so that animal husbandry to reduce the production of methane gas. He talked about working on a system like Integrated Animal Husbandry Model, Cooperative Society. He said that it is very important to make high quality fodder. Farmers who have very little land or are not very fertile are making profit through animal husbandry. Eastern UP There is a decrease in the number of animals in which special attention is to be paid.

Honorable guest Dr. D.S. Chauhan, CGM, NABARD, Lucknow said that based on their experiences, the emphasis was on value addition, training of agricultural students by ACABC, planning to work with the ICAR on creation of training model for the districts. Dr. BP Mishra, Director ICAR-Indian Veterinary Research Institute, Izatnagar, while welcoming all the guests while referring to the achievements of the institute, said that the agricultural sector is now moving from general agriculture to agricultural entrepreneurship. There are immense possibilities in dairy animal husbandry and poultry farming which should be exploited. Dr. Atar Singh, Director ICAR-ATARI, Zone-III, Kanpur emphasized the importance of the theme of the webinar and discussed the issues related to the development of animal husbandry in the state.



Pusa Krishi Vigyan Mela 2021 (25.02.2021)



On 25th February 2021, 'Pusa Krishi Vigyan Mela 2021' organized by ICAR-Indian Agricultural Research Institute, Pusa, New Delhi, was inaugurated by the Chief Guest, Hon'ble Minister of Agriculture and Farmers Welfare and Panchayati Raj, Government of India, Shri Narendra Singh Tomar. 'Pusa Krishi Vigyan Mela 2021', organized 25th-27th February 2021. The theme of the fair is self reliant farmers.



On this occasion, Honorable Shri Narendra Singh Tomar Ji said that Pusa Krishi Vigyan Mela is being held this year like every year. The event connects the farmer with technology, scientists and other farmers. Every year farmers take advantage of this fair and get many new information. He added that after independence, important legal changes were made in trade, industry, railways, transport, all areas, but important legal reforms were not made in agriculture. Therefore, the farmer was able to earn less profit than other occupations. Today, in order to speed up the progress of agriculture, the economic condition of the farmer is further strengthened, so the Government of India has made important legal reforms in agriculture. Three new agricultural laws will strengthen the economic condition of the farmers, paving the way for the income to double-quadruple.



On this occasion, Shri Kailash Chaudhary, State Agriculture Minister and Dr. Trilochan Mahopatra, DG ICAR & Secretary DARE also expressed their views.

In this Mela, the innovative farmers got the IARI Farmer Fellow Award and agricultural literature was released. The inauguration ceremony was broadcast via YouTube so that maximum number of farmers who could not come could join the fair.

Online workshop to provide information for the FPOs (5.3.2021)

On 5th March 2021 an online workshop was organized by the National Cooperative Development Corporation (NCDC) with the aim of providing information to all agronomical centers and ICAR institutes in relation to 10,000 farmer producing organizations across the country.

In the workshop, Honorable Minister of State for Agriculture, Government of India, Shri Purushottam Rupala Ji said that most of the farmers in India are small and medium farmers who have less land and their productivity is low. By combining them, their productivity will be increased by forming Farmers Producer Organization (FPO). Secretary DARE and Director General ICAR Dr. Trilochan Mohapatra said that 10,000 FPOs will be set up in the country in the next 5 years. NCDC FPO together with The program made for making will help the farmers, will help to take the product to the market. Dr. A.K. Singh, DDG (AE) said that more than 50 Krishi Vigyan Kendras have been identified.



International Women's Day (8.3.2021)



On 8th March 2021, on the occasion of International Women's Day, an online program was organized by the Indian Council of Agricultural Research, New Delhi. This time the theme of International Women's Day being celebrated across the country is 'Women's Leadership in Agriculture: Entrepreneurship, Equality and Empowerment'. In the workshop, Honorable Minister of State for Agriculture Shri Purushottam Rupala Ji said that women are considered as goddess in our country. When the proportion of girls in the country decreased, the venerable Prime Minister gave the slogan of

'Beti Bachao-Beti Padhao'. The 'Beti Bachao-Beti Padhao' program brought awareness to the society and is seeing improvement. The participation of women in the Startup India program is also high. Under the leadership of the Prime Minister, many works of interest to women are being done.

He also said that today women are not lagging behind in any field, women are also working equally in agriculture. Women also have an important role in agriculture, which has increased by 6 percent over the previous year. In our country, there have been Prime Ministers, Presidents, Chief Ministers, Governors and women in every important post. Women farmers are also being honored with Padma Shri. Women also have equal participation in agriculture and agricultural science.

On this occasion, Dr. Trilochan Mahapatra, DG ICAR & Secretary DARE, Dr. A.K. Singh, DDG (AE) also expressed their views. All the Deputy Director General, Assistant Director General, Director of ICAR institutes, women scientists and women farmers from all over the country, Vice Chancellors of Universities, all Krishi Vigyan Kendras and ICAR institutes were associated with the program.

13th Foundation Day Celebration of ICAR-ATARI Kanpur (19.3.2022)

On 19th March 2021 the 13th Foundation Day Celebration was organized in ICAR-Agricultural Technology Application Research Institute (ATARI) Zone-III, Kanpur.

Honorable Guest Dr. N.P. Singh, Director of ICAR-Indian Pulses Research Institute (IIPR) Kanpur Singh said in his address that ICAR-ATARI Kanpur and ICAR-IIPR Kanpur are working together.

In 2010, there was a severe shortage of pulses in the country. Pulses program was started in association with ICAR-ATARI Kanpur Director of that time Dr. A.K. Singh, which later changed into CFLD Oilseed-Pulses Project. Seed hubs were also established in this direction. Pulses production increased from 14 million tonnes to 24 million tonnes through this project. ICAR-ATARI and KVK are also included in the schemes being formulated by the Government of India today. Role of ATARIs and KVKs is very broad in development of Agriculture. Chief Guest Dr. A.K. Singh, Deputy Director General (Agricultural Extension) ICAR New Delhi, released the mobile app and publications (50 Innovative Farmers' Experiences and Annual Progress Report 2020) developed by ICAR-ATARI, Kanpur and said that through this app, information of new agricultural technologies will reach to farmers. On this occasion, Innovation farmers from various districts, scientists and heads of Krishi Vigyan Kendras and Director Extension of CSAUAT, Kanpur was also participated.

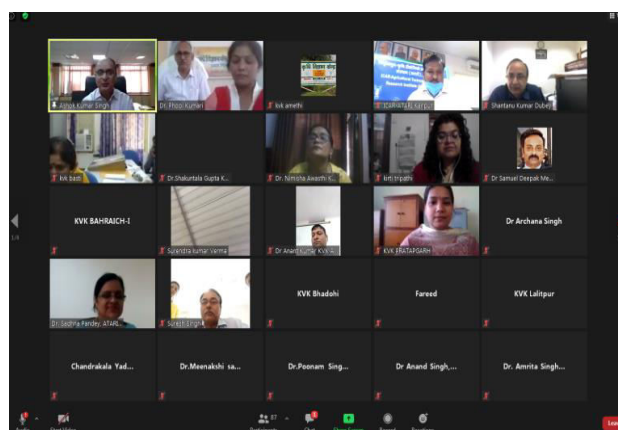


'Field Day and Farmer-Scientist Seminar' under Farmer First Project (27.3.2021)

On March 27th, 2021, 'Field Day and Farmer-Scientist Seminar' was organized under the Farmer First Project by ICAR-Indian Pulses Research Institute, Kanpur. At the program, field visit (demonstrations of chickpea melon and wheat demonstrations in gram, poultry, guava) was done by Dr. Atar Singh, all scientists and farmers. Dr. N.P. Singh, Director ICAR-Indian Pulses Research Institute, Kanpur said that there is a need for cultivation along with the inter-cropping system. In addition, in the rural environment, according to the region specific models are being told by scientists, they have to be adopted, organic fertilizers have to be used in the field. On this occasion various lectures were also delivered by the seniors.

Review workshop of NARI Project (7-8 April, 2022)

A review workshop of NARI (Nutri-Sensitive Agricultural Resources and Innovation) project was organized online in ICAR-ATARI Kanpur during 7-8 April, 2022. Dr A.K. Singh, DDG(AE) act as a chief guest of the programme. On this occasion he said that this project is a women-based and nutritional-based project. Awareness is important for right nutrition. Provide information to local women on how to use them in *Nutri-thali*. Director ICAR-ATARI Kanpur said that NARI Projects is an important project to eliminate malnutrition in the country. The KVKs should demonstrate fortified varieties of crops and new technologies and inform the local women about the products grown in the *Nutri-Garden* for round the year.



Institute Management Committee meeting (IMC) (16.4.2021)



IMC meeting organized by ICAR-ATARI, Kanpur on 16.4.2021. On this occasion, Director ATARI presented the achievements of 2020. In this meeting, Director of ICAR-ATARI, nominated members Dr. Ramakant Sharma ji and Shri Balram Singh Kachwaha ji, Principal Scientist, CTO of ATARI Kanpur and nominated members from ICAR

Institutes Dr. S.N. Singh, Dr. Rajesh Kumar, Dr. Shiv Dhar, Dr. Rajiv Kumar Agarwal were present.

Annual review workshop of NICRA project (28.05.2021)

The annual review workshop of NICRA Project was organized online on 28th May 2021 at ICAR-ATARI Zone-III, Kanpur. In the workshop, Dr. A.K. Singh, DDG (AE) said that NICRA project has been a fairly successful project. The Krishi Vigyan Kendras are working well, but there is a need to make it even better. The work being implemented by KVKs should be further improved with the help of ATARIs and CRIDA. There is a need to change the terminology of each

NICRA KVK to have a seed bank and a fodder bank. Organic farming is also directly related to climate. IFS method is being promoted. The workshop was Chaired by Dr. A.K. Singh Deputy Director General (AE) Organizer of the workshop Dr. Atar Singh - Director ICAR-ATARI Kanpur, Dr. Vinod Kumar Singh-Director ICAR-CRIDA Hyderabad Chief Guest, Guest of Honor Dr. A.K. Mehta-Former ADG and Chairman Z.M.C., Dr. J.V.N.S. Prasad were present in the workshop.



State Level Kharif Productivity Seminar-2021 (31.05.2021)

The State Level *Kharif* Productivity Seminar was organized through video conferencing under the chairmanship of Agriculture Production Commissioner, Government of Uttar Pradesh to discuss the preparations for the 31 May 2021 *Kharif*. ICAR-ATARI Kanpur Director also participated in the seminar. In the seminar, Hon'ble Agriculture Minister, Government of Uttar Pradesh, Shri Suryapratap Shahi ji said that the purchase centers which have been closed will be started. Agriculture Director Dr. A.P. Srivastava told FPOs will encourage group farming. Efforts are being made to increase the ground water level by running water conservation as a campaign. Last year also the *Kharif* production was very good, this time also all efforts are being made to increase the income of the farmers.

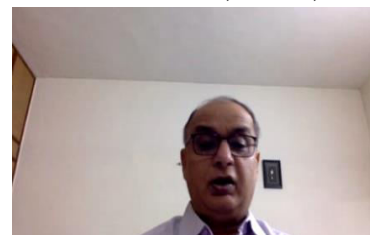
“Dedication of ICAR Technologies to the Farmers & Kritagya Hackathon Award Ceremony” (31.05.2021)



On 31st May 2021 ICAR-ATARI Director online participated in 'Dedication of Agricultural Technologies to Farmers and Kritagya Hackathon Award Ceremony' organized by New Delhi. Chief guest in the program was Shri Narendra Singh Tomar, Union Minister of Agriculture and Farmers Welfare. On this occasion, Shri Tomar said that ICAR has been instrumental in spreading scientific methods and innovations to the remote farmers of the country. The role of research institutes, universities and KVK can play an important role.

Divisional Meeting of ICAR (31.05.2021)

On 31st May 2021 a meeting was organized by the Division of Agriculture Extension, ICAR, New Delhi under the Chairmanship of Dr. A.K. Singh, DDG (AE). Dr. Randhir Singh, ADG (AE), Director ICAR-ATARI and their officers and scientists of the Division were present in the meeting. Special points regarding creation of farmer database were highlighted in this meeting. Guidelines regarding FPOs also need to be followed. KVKs in particular need to pay attention to the subject of Horticulture. Vegetables, fruits, medicinal plants, agro-forestry should be covered separately for production of quality planting material. Organizing MSME training programs is one of the important events.



33rd Foundation day ceremony of ICAR-National Research Centre on Mithun (2.06.2021)



On 2nd June 2021, Director ATARI online participated in the 33rd Foundation day ceremony of ICAR-National Research Centre on Mithun, Nagaland. Dr. Bhupendra Nath Tripathi, DDG (AS) Chaired the programme through video conferencing. He emphasized the contribution of ICAR-NRCM for the increase of 30% in Mithun population as compared to the previous census. He appreciated the hard work of the entire ICAR-NRCM for developing technologies that would benefit the farmers. He underlined the fact that

mithun production being organic has remarkable ability to thrive in forests without getting infected by various types of pathogens and parasites.

Webinar on World Environment Day (4.6.2021)

On 4th June 2021 a Webinar was organized on World Environment Day by ICAR-Central Research Institute of Agroforestry, Jhansi. Famous environmentalist Dr. Anil Prakash Joshi said that we need to feel the messages of nature. Due to the imbalance of nature, various cyclones are coming every day. New diseases like bird flu, swine flu and now corona virus have come. To avoid various diseases, only natural herbs like ginger, turmeric etc. are working for us. Everyone can contribute towards environmental protection.

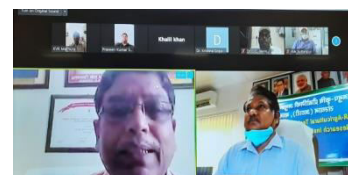


Webinar on 'Role of Agroforestry in Increasing Income and Environment Protection' (5.6.2021)

On the occasion of 5th June 2021-World Environment Day, an online webinar was organized by Krishi Vigyan Kendra Lucknow and a webinar on the topic 'Role of Agroforestry in Increasing Income and Environment Protection' was organized by Krishi Vigyan Kendra Amethi. Director ICAR-ATARI Kanpur participated in the webinar as the Chief Guest. In the webinar, Dr. A.D. Pathak, Director ICAR-Indian Sugarcane Research Institute Lucknow Chaired the webinar.

Online workshop for *Kharif* preparedness (5.6.2021)

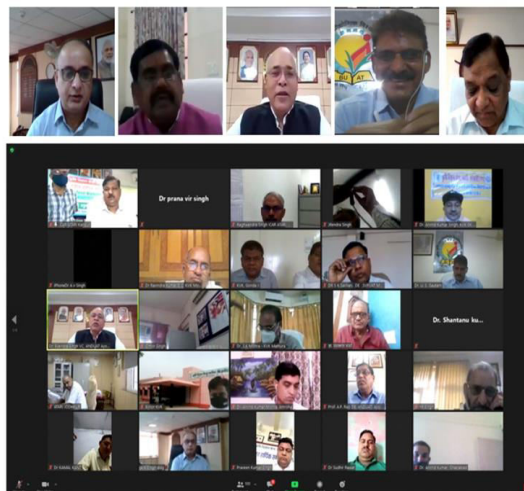
On June 5, 2021, under the chairmanship of Director ICAR-ATARI Kanpur, a meeting with Director Extension, SAUs and KVKs for the preparation of *Kharif* was organized online, in which they were provided information and major guidelines related to *Kharif*.



28th Annual Zonal Workshop of KVKs (15-17 June, 2021)

On 15-17th June 2021, the 28th Annual Zonal Workshop of Krishi Vigyan Kendras of Zone-III was organized online. Chief guest in the workshop Dr. A.K. Singh, DDG (AE), released the publications of ICAR-ATARI, and said that Krishi Vigyan Kendras of Uttar Pradesh are at the leading in the country in seed production. Seed production and plant material production are very important for Krishi Vigyan Kendras. ARYA Project is proving to be very profitable and successful to attract rural youth to agriculture.

Special guest Dr. Bijendra Singh, Vice Chancellor, ANDUA&T Ayodhya thanked the ATARI Director for meeting the budget on time and for smooth running of the work even during the Covid period. Special guest Dr. D.R. Singh, Vice Chancellor, CSAU&T, Kanpur informed that Krishi Vigyan Kendra Dilipnagar Kanpur Dehat is working by promoting biofortified species in Anuppur village of Kanpur Dehat district which is malnourished. Special guest Dr. R.K. Mittal Vice Chancellor, SVP&T, Meerut said that agriculture should be made 'Business Oriented' by promoting it as a business. Better marketing is needed to increase the income of the farmers. Special guest Dr. U.S. Gautam, Vice Chancellor, BUAT, Banda said that despite the lack of water in Bundelkhand, Krishi Vigyan Kendras have performed very well in the last several years and also advised to implement promotion policy for technical and other staff working in KVKs.



Director ICAR-ATARI Dr. Atar Singh gave a brief introduction of the various projects of the State and Central Government running through Krishi Vigyan Kendras and a brief details of progress report presented.

Workshop to prepare the activities of KVKs for the next 6 months of the year 2021 (26.6.2021)

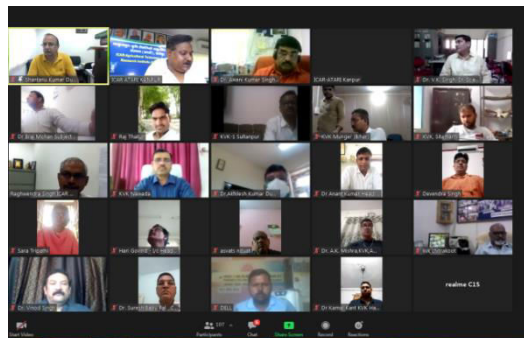


On 26 June 2021 an online workshop was organized by ICAR-ATARI Kanpur for Preparation of activities of Krishi Vigyan Kendras for the next 6 months, especially the status of sowing of *Kharif* season, preparation of *Rabi*, status of field demonstrations, budget status, work to be done under various projects, trainings, giving guidelines related to techniques used. Director ICAR-ATARI Kanpur chaired the workshop.

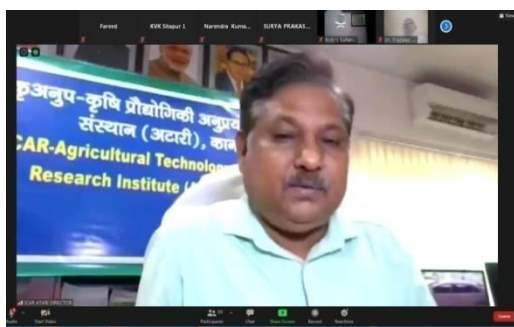
Webinar on Protected Cultivation (29.6.2021)

National Webinar on Approaches for Protected Cultivation was organized by ICAR-ATARI Kanpur on 29 June 2021. Director Dr. Atar Singh told that the protected production of vegetables and planting material etc. is done in the changing environment and reducing area using green house and polyhouse etc. KVKs should establish polyhouses at KVK level, which will greatly benefit to the farmers.

Presentation on the topic of 'Introduction & Success Story of Protected Cultivation' was given by Principal Scientist Dr. Raghavendra Singh. A presentation was given on 'Problems & Prospects of Protected Cultivation' by Principal Scientist Avani Kumar, ICAR-IARI, Pusa New Delhi. By Principal Scientist Dr. Anant Bahadur on the topic 'Drip irrigation techniques for protected cultivation'. By Principal Scientist Dr. Hare Krishna on the topic 'Urban Vegetable farming: Augmenting food and nutritional securities in cities'. Scientists, research scholars and farmers of Krishi Vigyan Kendras of ICAR-ATARI Kanpur, Patna, Ludhiana, Jabalpur and Jodhpur zones participated in the webinar.



National webinar on 'Monsoon 2021: Preparation for Kharif Season' (6.7.2021)



of ICAR-ATARI Kanpur, Patna, Ludhiana, Jabalpur and Jodhpur zones were participated in the webinar.

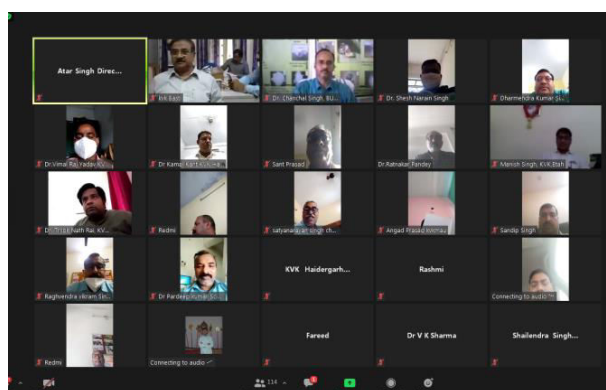
National webinar on 'Preparation for Monsoon 2021 Kharif Season' was organized by ICAR-ATARI Kanpur on 06th July 2021. Director Dr. Atar Singh narrated that the subject matter experts of DAMU project under ICAR-ATARI Kanpur are providing weather advisory and forecasts from the India Meteorological Department to the farmers on time. Guest speaker Dr. D.S. Pai, IMD, Pune, informed about the monsoon conditions and rainfall conditions for the next months. Scientists, research scholars and farmers of Krishi Vigyan Kendras

Webinar on Capacity Development of Subject Matter Specialists (9.07.2021)

A webinar was organized by ICAR-ATARI Kanpur on 09th July 2021 for capacity development of



subject matter specialist of Krishi Vigyan Kendras. Subject wise detailed presentation was made by the organizer Director Dr. Atar Singh and the scientists were given information according to the subject. Keep documenting the research papers and success stories etc. It is also necessary to take the feedback of farmers. Horticulture scientists pay special attention for protected cultivation, storage, processing and value addition etc. Popularization of drip and springler methods of irrigation and spread market related information and awareness to the farmers. Women scientists of home science should prepare ideal nutritional garden and provide information to the farmers, along with providing training to women, women centric FPOs must be developed. The scientists of plant protection, through farmers' seminar, fair etc., keep doing work related to the use of bio-pesticides, soil health cards etc. Principal Scientist Dr. Shantanu Kumar Dubey made a presentation on 'Planning OFT using PRA tools and conducting FLDs', Principal Scientist Dr. Raghawendra Singh made a presentation on 'Case study and reporting feed back' and DE CSAUA&T Kanpur Dr. A.K. Singh gave a presentation and detailed information on 'Extension activities and their reporting including the flagship programs of ICAR'.



93rd Foundation Day Celebrations of Indian Council of Agricultural Research (16.7.2021)

The 93rd Foundation Day celebrations of the Indian Council of Agricultural Research was organized on 16th July 2021. All the staff of ATARI participated in this event. In the function, Dr. Trilochan Mohapatra, Secretary DARE and Director General ICAR told that during the year 2020-21, 344 varieties of different crops were released in which 300 are climate resistant and 17 biofortified varieties. 11 new apps have been made by ICAR and also received the Digital India Award.

Hon'ble Minister of Agriculture and Farmers Welfare Minister Shri Narendra Singh Tomar ji congratulated ICAR for the successful completion of 92 years and said that ICAR has given many achievements to the country. Our country is an agricultural oriented country and agriculture has a very



important place in the country's economy. Hon'ble Cabinet Minister (Railways, Electronics & Information Technology & Communication) Shri Ashwini Vaishnav ji said that ICAR would get full cooperation from his department. Hon'ble Minister of Fisheries, Animal Husbandry and Dairying Shri P. Rupala ji said that we need to do technological innovations to clean the sea water and to create a good environment for the marine life. On this occasion, Hon'ble Agriculture Minister launched Kisan Sarathi App and rewarded institutions, scientists, KVKs and farmers.

4th Annual Zonal Workshop of ICAR-ATARI Pune (4.8.2021)

4th Annual Zonal Workshop of Krishi Vigyan Kendras of Zone-VIII was organized by ICAR-ATARI Pune on 04th August 2021. In which Director ICAR-ATARI Kanpur participated. Dr. A.K. Singh, DDG (AE) ICAR said that KVKs in each district is like a social, scientific and cultural area of its district. The technology made by ICAR and SAUs reaches the villages only through KVKs. Dr. V.M. Bhale, Vice Chancellor, PDKV Akola, said that farmers are becoming self-reliant with the efforts of KVKs. The inaugural address at the workshop was given by Director ICAR-ATARI Pune Dr. Lakhan Singh.



National webinar on 'Ground nut production constraints and their management in Bundelkhand region : Challenges and opportunities' (5.8.2021)

National webinar on 'Groundnut production constraints and their management in Bundelkhand region : Challenges and opportunities' was organized by Krishi Vigyan Kendra, Jhansi on 05th August 2021. In the webinar, a detailed presentation was given by Dr. Atar Singh, Director ICAR-ATARI Kanpur on the role of ATARI and KVK in groundnut production in Uttar Pradesh. The chief guest in the national webinar, Dr. U.S. Gautam, Vice Chancellor, BUAT Banda and special guests were Dr. Atar Singh, Dr. KK Pal and Dr. Subhash Chandra. The scientists were benefitted by presentations by other subject experts.



Review workshop of KVKs for Gramin Krishi Mausam Seva Project (5.8.2021)



On 05th August 2021, a review workshop was organized by ICAR-ATARI Kanpur to review the works of 20 Krishi Vigyan Kendras of GKMS project running through ICAR and India Meteorological Department. In the workshop, the work done related to weather advisories for the year 2020-21 were presented by Krishi Vigyan Kendras, which was reviewed by the India Meteorological Department and the subject expert panel of ICAR-ATARI Kanpur.

Independence day celebration (15.8.2021)



On the occasion of Independence Day on 15th August 2021, the flag hoisting was done by the Director, ICAR-ATARI Kanpur at the institute campus. On this occasion, after the flag hoisting and the national anthem, the martyrs of the country were remembered and honored by him.

Visit by Hon'ble Governor in KVK Sitapur-I (18.8.2021)



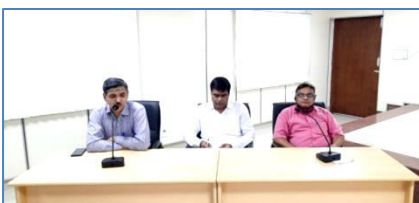
Hon'ble Governor of Uttar Pradesh Smt. Anandi Ben Patel ji visited KVK Sitapur-I on 18th August 2021. She gave valuable suggestions for export of Mangoes, tissue culture banana laboratory development, proper marketing of farmers produce with FPOs. Farmer interest groups can be formulated for raising their income. Need-based training must be organized even during Covid-19 in virtual mode.

Program on 'Food and Nutrition for Farmers' under 'Azadi Ka Amrit Mahotsav' (26.08.2021)

On 26th August 2021, a program on 'Food and Nutrition for Farmers' was organized by the Indian Council of Agricultural Research, New Delhi under the 'Azadi Ka Amrit Mahotsav' program being celebrated on the 75th year of India's independence. All Officers of ATARI have participated in this programme. On this occasion, the Chief Guest Hon'ble Minister of Agriculture and Farmers Welfare GOI Shri Narendra Singh Tomar said that our country has entered the 75th year of independence. According to the vision of the respected Prime Minister, we are celebrating it as 'Azadi ka Amrit Mahotsav'. Dr. Trilochan Mohapatra, Secretary DARE and Director General ICAR said that as per the instructions of Hon'ble Minister, we are organizing 'Azadi Ka Amrit Mahotsav' which will be celebrated for 75 weeks. Under this, programs for the benefit of farmers will be organized every week. Dr. A.K. Singh, DDG (AE) informed that a campaign is being organized every week under 'Azadi Ke Amrit Mahotsav'. Continuous research and their implementation are being done to remove malnutrition. Directors of ICAR Institutes, Scientists, Presidents and Scientists of Krishi Vigyan Kendras and farmers through KVK also joined the program.



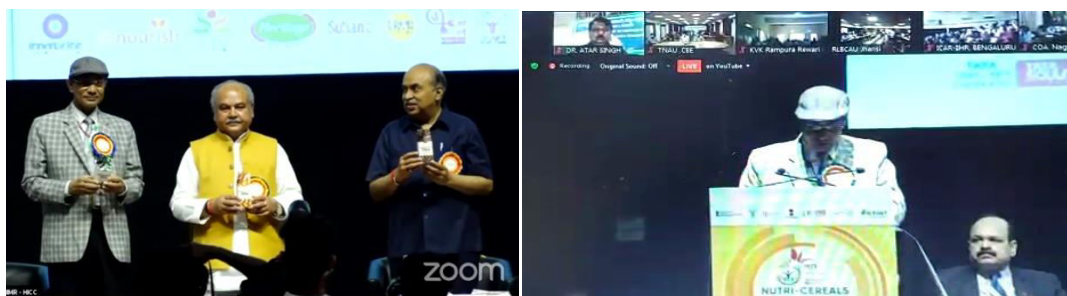
Hindi Pakhwada organized (14-29 September, 2021)



Hindi Pakhwada (fortnight) was organized at ICAR-ATARI Kanpur from 14th September to 29th September 2021, under which various competitions such as Hindi translation, application writing, question-answers, poetry reading, Hindi typing, Essay writing, filling the blank etc. were organized in last half hour time every day.

Nutritious Cereals Stakeholders' Conference, Tree Plantation & Initiatives of Poshan Vatika (17.09.2021)

On 17th September 2021, ICAR-Indian Institute of Millets Research (IIMR) Hyderabad launched 'Nutritious Cereals Stakeholders' Conference, Tree Plantation & Initiatives of Poshan Vatika' in the context of International Nutrient Cereals Year 2023. On this occasion, the Chief Guest, respected Shri Narendra Singh Tomar ji said that today is also the birthday of Hon'ble Prime Minister. On this event Hon'ble AM, MoS, DG ICAR & Secretary DARE, DDG (Crop Sci.), Directors of all ICAR Institute and all KVK Heads were joined.



Live telecast of Hon'ble Prime Minister's address and organizing farmer scientific dialogue (28.9.2021)



On 28th September 2021, live telecast of Hon'ble Prime Minister's address on 'Climate Resilient Agriculture' and farmer scientific dialogue was organized for all Krishi Vigyan Kendras. While inaugurating the new campus of National Institute of Biological Stress Management in Raipur through digital medium, the Prime Minister said that due to climate change, new pests and new diseases are also affecting crops. There is a need for continuous intensive research on these aspects. Recently we saw the attack of locust, India had stopped this attack by putting a

lot of effort and saved the farmers from causing much damage. The Prime Minister also released 35 varieties of crops with special properties developed by the Indian Council of Agricultural Research to tackle the challenges of climate change and malnutrition. Union Agriculture Minister Shri Narendra Singh Tomar ji, Chhattisgarh Chief Minister Shri Bhupesh Baghel ji, Secretary DARE and Director General ICAR Dr. Trilochan Mohapatra and all ATARI Directors have also joined the program.

Exporters Conclave program organized under Azadi ka Amrit Mahotsav (29.10.2021)



On 29th October 2021, Exporters Conclave program was organized by APEDA under the Azadi ka Amrit Mahotsav Celebration. The chief guest in the program Secretary Department of Commerce said that India will emerge as a superpower in agriculture. 70% of Basmati rice is exported from India. Indians are no less than anyone in ability. Joint Secretary Commerce Department said that Agriculture will not prosper due to indiscriminate use of fertilizers. UP will be the second state of the country in term of GDP. 190 countries are participating in

the World Expo in Dubai. The year 2023 will be celebrated as the International Year of Food. Jowar, Bajra, Ragi etc. are very beneficial in food grains. Logistics cost is high. On this occasion Director Apeda Dr. Tarun Bajaj, Chief Guest Shri B.V.R. Subrahmanyam-Secretary Commerce Department

and Dr.M.Angamuthu-Chairman Apeda, Shri Diwakar Nath Mishra-Joint Secretary Commerce Department, Shri Ananth Swarup-Joint Secretary Commerce Department also delivered the address.

State Level Review workshop on CFLD (Pulses/Oilseed) & Pulses Seed Hubs (22-23 Nov., 2021)



Two days State Level Review workshop of CFLD (Pulses/Oilseed) and Seed Hubs was jointly organized by ICAR-ATARI, Zone-III, Kanpur and BUAT on 22-23rd November 2021 at BUAT, Banda. The production of pulses-oilseeds has increased but needs attention in the whole country with Bundelkhand. In order to move towards self-reliance in pulses production, efforts were made by all of scientists of SAUs/ICAR/KVKs. Strong and scientific method based extension work is definitely possible to increase production. Krishi Vigyan Kendra is the center of agricultural revolution, the role of extension scientists is very important in technological dissemination and its application. After research, the association of scientists and farmers proves fruitful for the dissemination of field-friendly technologies. Emotional connection with farmers is essential for success in extension work. This statement was given by Prof. Narendra Pratap Singh, Hon'ble Vice Chancellor of Banda Agricultural University, Banda.

DDG (Agricultural Extension) Dr. AK Singh, who joined online as the Chief Guest in the program, said that high

Pulses production models must be replicate with latest package of practices in the climate changing scenario and Rice-wheat systems must be utilized for Pulses & Oilseed production.

Nutri Smart Villages: An Innovative Model for Strengthening Poshan Abhiyan (10.11.2021)



On 10th November, 2021, the program 'Nutri-Smart Village' was launched by Hon'ble Shri Narendra Singh Tomar, Union Agriculture Minister. Hon'ble Prime Minister's Comprehensive Scheme for Holistic Nutrition (Poshan Abhiyan) launched in 2018 has contributed significantly in improving the nutritional status of children, pregnant women and lactating mothers. He said that

malnutrition is a matter of concern not only for India but for the whole world. In his address, he described the problem of malnutrition as a big challenge and stressed on dealing with it efficiently and effectively. Shri Tomar emphasized on ensuring good health of women considering them as the pillar of a strong society and nation. He also stressed on inclusion of coarse cereals in the public distribution system along with wheat and rice. Shri Tomar said that coarse cereals being rich in nutrients can play an important role in effectively tackling the problem of malnutrition in the society.

Dr. Trilochan Mohapatra, Secretary (DARE) and Director General (ICAR) outlined 85 bio-fortified varieties of Indian Council of Agricultural Research, New Delhi released by the Prime Minister to strengthen the *Poshan Abhiyaan* of the Government of India. Dr. Mohapatra emphasized on taking the agricultural development work done at present to every household in the villages. The Director General also outlined the nutrient-sensitive Agricultural Resources and Innovation (NARI)

programme. Union Minister of State for Agriculture and Farmers Welfare, Ms. Shobha Karandlaje, Union Minister of State for Agriculture and Farmers Welfare, Mr. Kailash Choudhary, Mr. Sanjay Agarwal, Secretary, Ministry of Agriculture and Farmers Welfare, Government of India were also present on the occasion.

Meeting of the High Level Monitoring Committee on CRM (26.11.2021)



On 26th November 2021, under the chairmanship of Secretary DARE and Director General ICAR Dr. Trilochan Mohapatra, a high level meeting of Crop Residue Management (CRM) project was organized online. In the meeting, the Director General said that there has been a significant reduction in the area of crop residue burning in Uttar Pradesh. In Punjab the area has decreased but the intensity has not decreased as the biomass remains the same. Machines are also not used much in Punjab. In Haryana, burning is more

in 4 districts, which are being looked into, but not much improvement is visible yet. There is a need to analyze how much carbon dioxide is being emitted per hectare by the use of decomposer, what is the difference between the emission of carbon dioxide in slow decomposing and in rapid decomposing and which will be better.

In the meeting, Dr. A.K. Singh, Director IARI, Dr. V.P. Chahal-ADG (AE), Dr. S.K. Singh Director ICAR-ATARI Jodhpur, Dr. Rajbir Singh, Dr. KK Singh and Agriculture Officers of Punjab, Haryana and Uttar Pradesh states were present. Dr. Sadhna Pandey from ICAR-ATARI Kanpur participated in the meeting.

Webinar organized on 'Sustainable Development in Dairy Sector-Clean Milk Production' On the occasion of National Milk Day (26.11.2021)



A webinar on 'Sustainable Development in Dairy Sector - Clean Milk Production' was organized by ICAR-National Dairy Research Institute Karnal on the occasion of National Milk Day on 26th November 2021. In the webinar, the app was launched by Chief Guest Dr. Trilochan Mohapatra, Secretary DARE and Director General ICAR. The Director General appreciated the 11.5 times increase in milk production in India since 1951 to 198 MT, though low productivity of dairy animals still remains an important concern.

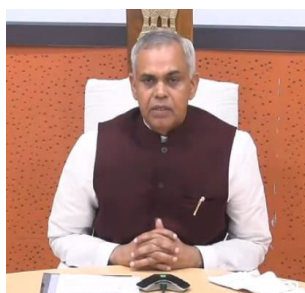
Special guest Dr. A.K. Singh DDG (AE) said that there is a need to create awareness to stop the use of antibiotics in milk. Many times people add such impurities to increase the quantity, which they do not even know that what will be the effect on the human body.

Special guest Dr. Bhupendra Nath Tripathi DDG (Animal Science) said that with the production of 200 million tonnes in milk, our country is on top in the world, United States with a production of 100 million tonnes is on the 2nd position. But our export in milk is very less. Today we are on top of milk production, the credit goes to Dr. Kurien and White Revolution. Today there are 1 lakh 90 thousand dairy cooperatives in which 60 lakh are women members.

In the webinar, directors of ICAR Institutes, scientists and farmers of all Krishi Vigyan Kendras participated in the program online.



NITI Aayog organizes workshop on Natural Farming (30.11.2021)



On 30th November 2021, a workshop was organized by NITI Aayog on the topic of natural farming under the *Azadi ka Amrit Mahotsav*.

Chief guest in the workshop, Hon'ble Governor Acharya Devvrat ji shared his experiences on natural farming. He told that he himself is also a farmer and since many years he has left chemical farming and does natural farming. Hon'ble Governor said that in the very first year, I got as much profit from natural farming as I got from chemical farming. The Government of India has been making efforts towards promoting organic farming for the last 20-30 years. Only those will be able to avoid diseases like Covid-19 who will have more immunity and the immunity will be more in those who consume products grown from natural farming. 60-70 years ago, diseases were very less in people because chemical farming was very less, with the increase in the use of chemicals in agriculture, heart diseases, sugar, BP, cancer and other new diseases are increasing rapidly. The products of natural farming are also in demand abroad and good price can be obtained by exporting them, whereas the products produced using more chemicals cannot be exported abroad.

NITI Aayog Vice-Chairman Dr. Rajiv Kumar said that we have been trying to promote natural farming since many years. If we want to double the income of farmers, reduce their cost, take care of health, then chemical free farming is necessary for this. 90 percent of the country's water is used in the agriculture sector and 70 percent of the water is received in the form of ground water. Through natural farming, we bring carbon from the atmosphere back to the ground. He said that today it is the responsibility of Krishi Vigyan Kendras, State Agricultural Universities and agricultural scientists to promote natural farming and take initiative in taking this farming to the farmers.

More than 930 participants mainly Krishi Vigyan Kendras, State Agricultural Universities from all over the country. Scientists, directors of ICAR institutes and scientists, farmers and research scholars joined the workshop online through online medium.

Hon'ble Prime Minister's speech at the National Conference on Natural Farming (16.12.2021)



On 16th December 2021, the speech was given by Honorable Prime Minister Shri Narendra Modi ji in the program 'National Conference on Natural Farming' on the third and last day of the three-day Pre-Vibrant Gujarat Summit 2021 being celebrated on 14-16 December 2021.

The program was organized in Amul, District Anand, Gujarat, in which Hon'ble Governor Gujarat Acharya Devvrat ji, Shri Amit Shah - Hon'ble Home Minister, GOI, Shri Narendra Singh Tomar - Hon'ble Minister of Agriculture and Farmers Welfare, GOI and Gujarat Chief

Minister Shri Bhupendra Patel. The Chief Minister of Uttar Pradesh, Shri Yogi Adityanath ji and other honorable ministers were present in the program in physical or online form.

On this occasion, Hon'ble Prime Minister, who was addressing the program through virtual medium, said that today is an important day, today about 8 crore farmers are viewing this program from every corner of the country through virtual mode. Even though this conclave is happening in Gujarat, it will have an impact all over India. The Prime Minister said that many steps have been taken to double the income of the farmers. Various chemicals being used in agriculture are adversely affecting the nature.

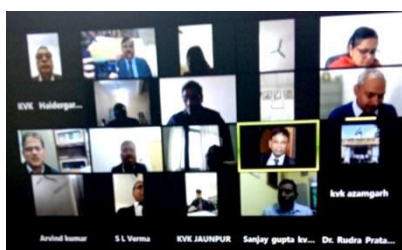
Chemical and fertilizer contributed a lot to the Green Revolution, but we have to focus on its alternative. These chemicals are exported from abroad and are expensive and also have adverse effects on health, so it is better to avoid them. It is better to take preventive steps before the problem becomes worse. The Prime Minister said that our civilization has flourished with agriculture. He said that thousands of farmers have adopted natural farming in recent years. Farmers are also getting benefit from the Paramparagat Krishi Vikas Yojana launched by the Central Government, in which training is also being given to the farmers and help is also being given to move towards natural farming.

Shri Amit Shah ji said that natural farming is increasing continuously due to the efforts of the central and state governments. There is a great demand for organic products in the country and the world. For the first time, the Ministry of Cooperation has been established by the Hon'ble Prime Minister.

Shri Narendra Singh Tomar ji said that the Government of India has also started a sub-scheme to promote natural farming and 8 states have also started working under this sub-plan.

On this occasion, all the institutes, universities and students of the country including Uttar Pradesh, scientists, farmers in Krishi Vigyan Kendras listened to the Prime Minister's speech through online medium and got important information on natural agriculture by the scientists.

Review workshop of CRM KVKs (18.12.2021)



On 18th December 2021, ICAR-ATARI, Zone III, Kanpur organized a workshop of 23 Krishi Vigyan Kendras related to the Crop Residue Management Project of Uttar Pradesh through online medium.

On this occasion Dr Atar Singh, Director said that under CRM project, field trials were conducted in 138 villages. Major machines used include happy seeder, mulcher, cutter cum spreader, rotavator, etc., performance on the farm, financial usage

was evaluated. Also KVKs of SAUs of Kanpur, Meerut, Ayodhya, and ICAR institutes & NGOs KVKs, presented the progress in the Crop Residue Management project relative to target. through the presentation.

Constitution Day Celebration (26.11.2021)



On 26th November 2021 Constitution Day was celebrated at ICAR-ATARI Kanpur. On this occasion, the Preamble of the Constitution was read by all the scientists, officers and employees of the Institute and the main points of the Constitution were discussed. The program was chaired by Dr. U.S. Gautam. In the program, all the ATARI staff expressed their views and took a pledge to protect the Constitution.



Annexure



Achievements of Projects & Special Programmes

(1) Skill development training (ASCI)

S. No.	Name of QP/Job role	Duration (hrs)	No. of Courses Organised	No. of Participants						
				SCs/STs		Others		Total		TOTAL
				Male	Female	Male	Female	Male	Female	
1	Agriculture Extension Service Provider	200	3	21	17	49	14	70	32	102
2	Agriculture Machinery Demonstrator	200	1	12	6	16	6	28	12	40
3	Animal Health Worker	300	4	25	8	59	12	85	19	104
4	Beekeeper	200	2	24	1	20	0	44	1	45
5	Broiler Farm Worker	200	1	12	0	8	0	20	0	20
6	Dairy Farmer - Entrepreneur	200	4	18	1	87	14	105	15	120
7	Mushroom Grower	200	5	38	16	72	16	110	32	142
8	Nursery Worker	200	2	3	2	31	4	35	5	40
9	Organic Grower	200	3	6	0	49	5	55	5	60
10	Quality Seed Grower	200	3	39	2	35	4	75	5	80
11	Vermicompost Producer	200	2	17	0	22	1	39	1	40
	TOTAL		30	215	53	448	76	666	127	793

(2) Crop Residue Management (CRM)

2.1 CRM Machinery procured by KVKs

S.No.	Name of the Machine/ Equipment	No. of machines procured
1	Happy Seeder	21
2	Reversible M.B. Plough	23
3	Paddy Straw Chopper/ Shredder / Mulcher	38
4	Zero Till Drill	25
5	Rotavator	11
6	Tractor	11
Total		129

2.2 IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities	No. of Participants
1	Kisan Melas organized	86	16787
2	Awareness programmes conducted at Village Panchayat/ Block/ District Level	169	15952
3	Mobilization of schools and colleges through essay completion, painting, debate etc.	213	11267
4	Demonstration conducted (ha)	1525.60	4411
5	Training Programmes conducted	108	2472
6	Exposure visits organized	31	1283
7	Field /harvest days organized	47	2073
		654	54245

2.3 Other IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities
1	Advertisement in Print media	5430
2	Column / Articles in newspaper and magazines etc.	431
3	Hoarding fixed (at Mandi/ Road side/Market/ Schools/ Petrol pump/ Panchayat etc.)	274
4	Poster/Banner placed	1497
5	Publicity material - leaflets/ pamphlets etc. distributed	131722
6	TV programmes/ panel discussions Doordarshan/ DD-Kisan and other private channels	134
7	Wall writing	1814
	Total	141302

(3) TSP & KSHAMTA

3.1 Achievement of TSP (Tribal Sub Plan)

S.No.	Activities	Number
1	Farmers Training	
	No. of Trainings/Demons	27
	No. of Farmers	748
2	Women Farmer Training	
	No. of Trainings/Demons	19
	No. of women farmers	575
3	Rural Youths	
	No. of Trainings/Demons	11
	No. of youths	315
4	Extension Personnel	
	No. of Trainings/Demons	6
	No. of Extension Persons	154
5	Number of farmers involved	

	On- farm trials	52
	Frontline demos	3570
	Mobile agro- advisory to farmers	155061
6	Participants in extension activities (No.)	847
7	Production of seed (q)	800
8	Production of Planting material (Number in lakh)	15002.55
9	Production of Livestock strains (Number in lakh)	0.01076
11	Testing of Soil, water, plant, manures samples (Number)	197

3.2 Achievement of KSHAMTA (Knowledge Systems And Home Based Agricultural Management in Tribal Areas)

Number of Adopted Villages	No. of Activities		No. of farmers benefited	
	Demo	Training	Demo	Training
14	47	75	3738	2084

4

4. SCSP (Schedule Cast Sub Plan)

S.No.	Activities	Number
1	Farmers Training	
	No. of Trainings/Demons	848
	No. of Farmers	8491
2	Women Farmer Training	
	No. of Trainings/Demons	243
	No. of women farmers	2250
3	Rural Youths	
	No. of Trainings/Demons	54
	No. of youths	1346
4	Extension Personnel	
	No. of Trainings/Demons	32
	No. of Extension Persons	721
5	Number of farmers involved	
	On- farm trials	227
	Frontline demos	6404
	Mobile agro- advisory to farmers	19632
6	Participants in extension activities (No.)	35436
7	Production of seed (q)	1260.56
8	Production of Planting material (Number in lakh)	1.67
10	Production of fingerlings (Number in lakh)	2.03
11	Testing of Soil, water, plant, manures samples (No.)	2639

5

5. NARI programme

a) Details of activities performed under NARI programme

S.No.	Programmes	No. of activities	No. of farmers/ beneficiaries
1	Nutritional Garden	1071 units established	1160
2	Bio-fortified crops	98	2233
3	Value addition	135	1844
4	Training programmes	224	4714
5	Extension activities	187	8886
	Total	644	18837

b) Bio-Fortified Crops used for nutritional security

Category	Bio Fortified Crop	Variety	Area (ha)	No of Beneficiaries
Cereal	Maize	--	0.10	20
	Rice	Kala Namak	4.05	17
	Wheat	Black wheat	151.00	338
Millet	Pearlmillet	--	2.50	7
	Sorghum	--	1.00	5
Oilseed	Groundnut	Divya	5.25	17
	Mustard	PM 30	21.20	62
Pulses	Lentil	KL 320	22.00	55
	Lathyras			
Vegetable	Cauliflower	Pusa Meghana	1.25	60
	Redish	Pusa Jamini	7.60	55
	Potato	Kufri Neelkanth	1.50	220
Tuber	Sweet Potato	Pusa Sunahari	0.25	25
Total			217.70	881

6. NICRA

S.No.	Category	Demo	Area (ha)	
1	NRM	202	526.80	
2	Crop Production	2403	821.75	
		Demo	Area (ah)	No. of Animals
3	Livestock & Fisheries	240	8.77	715
		Courses	No. of Farmers benefitted	
4	Capacity building	85	2000	
		No. of programmes	No. of Farmers benefitted	
5	Extension Activities	78	2295	

7. ARYA

S.No.	Name of entrepreneurial units	No. of entrepreneurial units established	No. of Training programs organised	No. of rural youth trained		No. of youth established units	
				Male	Female	Male	Female
1	Mushroom production	152	5	84	36	139	13
2	Fruits and vegetable processing units,	4	1	20	0	4	0
3	Horticulture nursery	1	1	19	1	19	0
4	Poultry	67	5	90	8	64	13
5	Goat farming	62	7	111	21	69	12
6	Bee keeping	87	11	133	12	79	8
7	Others if any	1	1	16	4	16	0
Total		374	31	473	82	390	46

8. Rainwater Harvesting Structures

Sr. No.	Activities	Number
1	Training programmes	17
2	Demonstration	5
3	Visit by farmers	858
4	Visit by officials	40

9. NEMA (New Extension Methodologies and Approaches)

Name of Crop with variety	No. of districts	No. of Villages selected	No. of Blocks	No. of household selected	
				Adapter household	Non adapter household
Basmati Rice, PB-1509, PB-1121, PB-1	6	42	19	743	675
Rice : PB-1509, PB-1637, PB-1718, PB-1692	1	10	5	20	20
Wheat : Biofortified Varieties- DBW-303, WB-02, HPBW-01, DBW-187, DBW-173	1	10	5	20	20
Paddy (Pusa-1121)	1	4	2	40	40
Total	9	66	31	823	755

10. Pulses Seed Hub

Season	Name of Pulse crop	Production			Category of seed (F/S, C/S)	Distributed to No. of farmers
		Target (q)	Area sown (ha)	Actual Production (q)		
Kharif	Black gram	50.00	5.00	18.00	F/S	7
	Green Gram	50.00	10.00	32.70	F/S	15
Total		100.00	15.00	50.70		22
Rabi	Chick pea	1225.00	80.00	1108.00	F/S	6
	Field pea	1145.00	78.00	818.60	F/S	0
	Lentil	700.00	58.00	296.74	F/S	12
Total		3070.00	216.00	2223.34		18
Summer	Black gram	20.00	2.00	14.50	F/S	0
Total		20.00	2.00	14.50		
Grand Total		3190.00	233.00	2288.54		40

11. Swachhata Abhiyan Mission

S.No.	Items	No. of Programmes	No. of persons participated
1	Toilet maintenance	83	1400
2	Road, drain cleaning	184	3671
3	Garbage disposal	115	1851
4	Door to door awareness	158	2573
5	Awareness campaign	282	8628
6	School Drama	5	525
7	School rally	26	2854
8	Writing painting slogans	50	949
9	Composting	54	1064
10	Other	113	1790
	Total	1070	25305

12. Aspirational District Scheme

Name of programme	Number
Training	
Session No.	49
No. of farmers	1155
Officers/staff involved	90
Seed & Plant Distribution	
Programme number	15
Seed distribution in q	178
No. of plant distributed	69530
Biological products distributed	205
No. of programme organised	51

No. of farmers	1035
Officers/ staff involved	54
Animal husbandra & fish distribution programme	
Vaccination	69
Medicine for control of parasite	56
Distribution of mineral mixure	51
No. of farmers	80
Officers/ staff involved	29

Annex-II

Infrastructure Facilities at KVKs

S. No.	KVK District	SAU/ ICAR/ Edn/ NGO	Year of estt.	Farm (in ha)	Admin Bldg	Staff Quarter	Farmers Hostel	Threshing Floor	Tube well	Drip Irrig.	S&W Test. Lab	Fencing	Soil Testing Kit (Proc.)	Rain Water Harv. Stru.	Demo Units (ICAR)	Demo Units (Others)	IFS	Minimal Proc fac.	e-Conn. (ERNET)	Carp Hatch.	Solar Panel	Tech. Inf. Unit	Micro Nut. Fac.	Mini Seed Proc. Fac.	Four Wh	Two Wh.	Tractor	Gen set	
A) ANDUAT, Ayodhya																													
1	Bahraich-I	SAU	1983	13.600	Y	Y	Y	Y	Y	Y	Y	Y	1	N	3	5	N	N	N	N	N	N	N	N	Y	1	Y	N	
2	Basti	SAU	1989	20.000	Y	Y	Y	Y	Y	N	Y	Y	1	N	2	1	N	N	N	N	Y	N	N	N	Y	1	Y	N	
3	Ballia	SAU	1984	9.600	Y	Y	Y	Y	Y	N	Y	Y	-	N	2	-	N	N	N	N	N	N	N	Y	2	Y	N		
4	Mau	SAU	1989	21.000	Y	Y	Y	Y	Y	N	Y	N	-	N	2	-	N	N	N	N	N	N	N	Y	1	Y	N		
5	Varanasi	SAU	1989	12.350	Y	Y	Y	Y	Y	N	Y	Y	-	N	5	-	Y	N	N	N	N	N	N	Y	1	Y	N		
6	Siddharthnagar	SAU	1992	16.400	Y	Y	Y	Y	Y	Y	Y	Y	1	N	4	-	N	N	N	N	N	N	N	Y	1	Y	N		
7	Faizabad	SAU	2004	20.000	Y	Y	Y	Y	Y	N	Y	Y	1	N	2	1	N	N	N	N	N	N	N	Y	1	Y	N		
8	Gorakhpur-I	SAU	2004	13.110	Y	Y	N	Y	Y	N	Y	Y	1	N	1	-	N	N	N	N	N	N	N	Y	2	Y	N		
9	Mahrajganj	SAU	2004	4.000	Y	Y	Y	Y	Y	N	Y	Y	-	N	2	1	N	N	N	N	N	N	N	Y	1	Y	N		
10	Sonbhadra	SAU	2004	4.800	N	N	N	Y	Y	Y	Y	N	1	N	3	-	N	N	N	N	N	N	N	Y	2	Y	N		
11	Azamgarh	SAU	2004	17.000	Y	Y	Y	Y	Y	N	Y	Y	-	N	3	1	N	N	N	N	N	N	N	Y	2	Y	N		
12	Barabanki	SAU	2004	12.500	Y	Y	Y	Y	Y	N	Y	Y	-	N	2	-	N	N	N	N	Y	N	N	Y	2	Y	N		
13	Balrampur	SAU	2005	16.320	Y	Y	Y	Y	Y	Y	N	Y	-	N	2	-	N	N	N	N	Y	N	N	Y	1	Y	N		
14	Chandoli	SAU	2005	8.000	Y	Y	Y	Y	Y	Y	Y	Y	-	N	3	-	N	N	N	N	N	N	N	Y	1	Y	N		
15	Jaunpur-I	SAU	2005	7.200	Y	Y	Y	Y	Y	N	Y	Y	-	N	6	-	N	N	N	N	N	N	N	Y	1	Y	N		
16	Sant Kabir Nagar	SAU	2009	24.000	Y	Y	Y	N	Y	N	N	N	-	N	-	-	N	N	N	N	N	N	N	Y	1	Y	N		
17	Ambedkar Nagar	SAU	2010	9.735	Y	Y	Y	N	Y	N	N	N	-	N	-	-	N	N	N	N	N	N	N	Y	0	Y	N		
18	Amethi	SAU	2018	13.000	N	N	N	N	N	N	N	N	-	N	-	4	N	N	N	N	N	N	N	N	Y	0	N	N	
19	Bahraich-II	SAU	2018	12.000	N	N	N	N	N	Y	N	N	-	N	-	3	N	N	N	N	N	N	N	Y	0	N	N		
20	Jaunpur-II	SAU	2018	9.200	N	N	N	N	N	N	N	N	-	N	-	3	N	N	N	N	N	N	N	Y	0	N	N		
21	Sultanpur-II	SAU	2018	14.707	N	N	N	N	N	N	N	N	-	N	8	-	N	N	N	N	N	N	N	Y	0	N	N		
22	Gonda-II	SAU	2018	12.332	N	N	N	N	N	N	N	N	-	N	4	-	N	N	N	N	N	N	N	Y	0	N	N		
23	Ghazipur-II	SAU	2018	13.600	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	0	N	N		
24	Shravasti	SAU	2020	21.227	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	N	N	N		
25	Azamgarh-II	SAU	2021	8.151	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	N	N	N		
B) BUAT, Banda																													
26	Jhansi	SAU	1984	22.500	Y	Y	N	N	Y	N	Y	N	2	N	1	3	Y	N	Y	N	Y	Y	N	Y	1	Y	N		
27	Mahoba	SAU	2004	8.000	Y	Y	Y	N	Y	N	Y	N	2	N	2	-	Y	N	Y	N	N	N	N	Y	1	N	N		
28	Hamirpur	SAU	2005	12.700	Y	Y	N	Y	Y	N	N	N	2	N	2	1	Y	N	Y	N	N	Y	N	Y	0	N	N		
29	Jalaun	SAU	2005	23.300	Y	Y	Y	N	Y	N	N	Y	2	N	1	-	Y	N	Y	N	N	Y	N	Y	1	Y	N		

S. No.	KVK District	SAU/ ICAR/ Edn/ NGO	Year of estt.	Farm (in ha)	Admin Bldg	Staff Quarter	Farmers Hostel	Threshing Floor	Tube well	Drip Irrig.	S&W Test. Lab	Fencing	Soil Testing Kit (Proc.)	Rain Water Harv. Stru.	Demo Units (ICAR)	Demo Units (Others)	IFS	Minimal Proc fac.	e-Conn. (ERNET)	Carp Hatch.	Solar Panel	Tech. Inf. Unit	Micro Nut. Fac.	Mini Seed Proc. Fac.	Four Wh	Two Wh.	Tractor	Gen set	
30	Lalitpur	SAU	2005	20.330	Y	Y	N	Y	Y	N	N	Y	2	N	3	2	Y	N	Y	N	Y	Y	N	N	Y	1	Y	Y	
31	Banda	SAU	2007	8.890	Y	N	Y	N	Y	N	N	N	2	N	-	-	Y	N	Y	N	N	N	N	N	Y	0	Y	N	
32	Prayagraj-II	SAU	2020	9.647	N	N	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	-	-	N			N	
C) CSAUAT, Kanpur																													
33	Raebareli	SAU	1984	9.800	Y	Y	Y	N	Y	N	Y	Y	2	N	3	2	N	N	N	N	Y	N	N	N	Y	1	Y	N	
34	Fatehpur	SAU	1989	10.200	Y	N	Y	N	Y	Y	Y	Y	2	N	3	2	N	N	N	N	N	N	N	N	Y	1	Y	N	
35	Aligarh	SAU	1992	20.000	Y	Y	Y	N	Y	N	Y	Y	2	N	2	2	N	N	N	N	N	N	N	N	Y	2	Y	N	
36	Kannauj	SAU	2004	10.000	Y	Y	Y	N	Y	N	N	Y	2	N	3	-	N	N	N	N	Y	N	N	N	Y	1	Y	N	
37	Etawah	SAU	2004	6.500	Y	Y	N	Y	Y	N	N	Y	2	N	2	-	N	N	N	N	N	N	N	N	Y	1	Y	N	
38	Mainpuri	SAU	2004	10.000	Y	Y	Y	N	Y	N	Y	N	2	N	3	-	N	N	N	N	N	N	N	N	Y	2	Y	N	
39	Kanpur Dehat	SAU	2004	20.000	Y	N	Y	N	Y	N	Y	N	3	N	3	2	N	N	N	N	Y	N	N	N	Y	1	Y	N	
40	Firozabad	SAU	2004	20.000	Y	Y	Y	Y	Y	N	N	Y	2	N	2	2	N	N	N	N	N	N	N	N	Y	1	Y	N	
41	Lakhimpur Kheri	SAU	2005	20.000	Y	Y	Y	Y	Y	N	N	Y	2	N	1	-	N	N	N	N	N	N	N	N	Y	1	Y	N	
42	Farrukhabad	SAU	2005	20.000	Y	Y	Y	Y	Y	N	N	Y	2	N	-	-	N	N	N	N	N	N	N	N	Y	1	Y	N	
43	Hardoi-I	SAU	2005	16.000	Y	Y	N	Y	Y	N	N	Y	2	N	2	1	N	N	N	N	Y	N	N	N	Y	1	Y	N	
44	Mahamaya Nagar	SAU	2009	20.755	Y	Y	Y	N	Y	N	N	N	2	N	2	-	N	N	N	N	N	N	N	N	Y	0	Y	N	
45	Kasganj	SAU	2018	9.200	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N		N	0	N	N	
46	Auraiya	SAU	2007	20.679	Y	N	Y	N	Y	N	N	N	2	N	7	-	Y	N	Y	N	N	N	N	N	Y	1	Y	Y	
47	Raebareili-II (New KVK)	SAU	2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D) SVPUAT, Meerut																													
48	Bijnor	SAU	1992	13.350	Y	Y	Y	Y	Y	N	Y	Y	2	N		2	N	N	N	N	N	N	N	N	Y	1	Y	N	
49	Rampur	SAU	1992	12.813	Y	Y	Y	Y	Y	N	Y	Y	1	N	3	1	N	N	N	N	N	Y	N	N	Y	1	Y	Y	
50	Budaun-I	SAU	1992	22.280	Y	Y	Y	Y	Y	N	Y	Y	2	N	3	-	N	N	N	N	N	Y	N	N	Y	1	Y	N	
51	Saharanpur	SAU	1992	10.109	Y	Y	Y	Y	Y	N	Y	Y	2	N	3	2	Y	N	N	N	N	Y	N	N	Y	1	Y	N	
52	Ghaziabad	SAU	1992	15.640	Y	Y	Y	Y	Y	N	N	Y	2	N	5	2	Y	N	N	N	N	Y	N	N	Y	2	Y	N	
53	Shahjahanpur	SAU	1994	18.314	Y	Y	Y	Y	Y	N	Y	Y	2	N	5	-	N	N	Y	N	N	Y	N	N	Y	1	Y	N	
54	Meerut	SAU	1994	8.820	Y	Y	Y	Y	Y	N	Y	Y	2	Y	5	2	Y	N	Y	N	N	Y	N	N	Y	1	Y	N	
55	Muzaffarnagar-I	SAU	1994	10.600	Y	Y	Y	Y	Y	N	Y	Y	2	N	2	1	N	N	N	N	N	Y	N	N	Y	1	Y	N	
56	Pilibhit	SAU	1998	12.000	Y	Y	Y	Y	Y	N	Y	Y	1	N	3	-	N	N	Y	N	N	N	N	N	Y	1	Y	N	
57	Baghpat	SAU	2004	12.560	Y	Y	Y	Y	Y	N	N	Y	2	N	3	-	Y	N	Y	N	N	Y	N	N	Y	1	Y	N	
58	Moradabad	SAU	2005	17.500	Y	Y	Y	Y	Y	N	Y	Y	1	N	2	-	N	N	Y	N	N	Y	N	N	Y	1	Y	Y	
59	Gautam Budha Nagar	SAU	2005	15.640	Y	Y	Y	Y	Y	N	Y	Y	2	N	3	-	Y	N	Y	N	N	N	N	Y	1	Y	N		
60	Bulandshahr	SAU	2004	15.549	N	Y	Y	Y	Y	N	N	Y	2	N	-	-	Y	N	Y	N	N	Y	N	N	N	1	Y	N	
61	Shamli	SAU	2018	8.547	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N	
62	Sambhal	SAU	2018	12.000	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N	
63	Budaun-II	SAU	2018	12.150	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N	

S. No.	KVK District	SAU/ICAR/ Edn/ NGO	Year of estt.	Farm (in ha)	Admin Bldg	Staff Quarter	Farmers Hostel	Threshing Floor	Tube well	Drip Irrig.	S&W Test. Lab	Fencing	Soil Testing Kit (Proc.)	Rain Water Harv. Stru.	Demo Units (ICAR)	Demo Units (Others)	IFS	Minimal Proc fac.	e-Conn. (ERNET)	Carp Hatch.	Solar Panel	Tech. Inf. Unit	Micro Nut. Fac.	Mini Seed Proc. Fac.	Four Wh	Two Wh.	Tractor	Gen set
64	Amroha	SAU	2018	12.335	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N
65	Hapur	SAU	2018	12.000	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N
66	Muzaffarnagar-II	SAU	2018	12.419	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	-	N	0	N	N
67	Moradabad-II	SAU	2020	12.00	N	N	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	-	-	N	-	-	N
E) ICAR Institute																												
68	Bareilly	ICAR	1985	6.900	Y	N	Y	-	Y	Y	Y	N	-	N	2	-	N	N	N	N	N	N	N	N	Y	1	Y	N
69	Lucknow	ICAR	1994	20.000	Y	N	N	-	Y	Y	N	N	1	N	5	-	Y	N	N	N	N	N	N	N	Y	1	Y	N
70	Lakhimpur Kheri-II	ICAR	2019	12.049	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	0	N	N	N
71	Kushinagar	ICAR	2005	20.000	Y	Y	Y	-	Y	Y	Y	Y	-	N	2	-	Y	N	Y	N	N	N	N	Y	0	Y	Y	Y
72	Sant Ravidas Nagar	ICAR	2008	18.416	Y	Y	Y	-	Y	Y	N	Y	2	N	5	-	Y	N	Y	N	Y	Y	N	N	Y	0	Y	N
73	Deoria	ICAR	2009	8.160	Y	Y	Y	-	Y	Y	N	Y	1	N	5	-	Y	N	Y	N	N	Y	N	N	Y	0	Y	Y
74	Hardoi-II	ICAR	2020	18.00	N	N	N	N	N	N	N	N	-	N	-	-	-	-	-	-	-	-	-	-	Y	-	N	N
F) NGO KVKs																												
75	Sultanpur-I	NGO	1976	73.300	Y	Y	Y	N	Y	N	Y	N	2	N	7	2	Y	N	Y	N	N	Y	N	N	Y	2	Y	N
76	Etah	NGO	1992	45.500	Y	Y	Y	Y	Y	N	Y	Y	2	N	2	1	Y	N	Y	N	N	Y	N	Y	Y	1	Y	N
77	Gonda-I	NGO	1989	21.300	Y	Y	Y	N	Y	N	Y	Y	2	N	9	1	Y	N	N	Y	N	Y	N	N	Y	1	Y	N
78	Chitrakoot	NGO	1992	19.650	Y	Y	Y	-	Y	Y	Y	N	3	Y	9	-	Y	N	N	Y	N	Y	N	N	Y	1	Y	N
79	Pratapgarh	NGO	1999	20.110	Y	Y	Y	Y	Y	N	N	Y	3	Y	5	-	Y	N	N	N	N	Y	N	N	Y	2	Y	N
80	Unnao	NGO	1999	20.340	Y	Y	Y	N	Y	N	Y	N	2	N	8	-	Y	N	N	N	N	Y	N	N	Y	1	Y	N
81	Ghazipur-I	NGO	2002	25.200	Y	Y	Y	Y	Y	N	Y	Y	2	N	2	-	Y	N	N	N	N	N	N	Y	Y	2	Y	N
82	Agra	NGO	2002	20.000	Y	Y	N	Y	Y	Y	Y	Y	2	N	3	-	N	N	Y	N	N	N	N	N	Y	1	Y	N
83	Sitapur-I	NGO	2005	12.353	Y	Y	Y	Y	Y	N	Y	Y	2	N	2	-	N	Y	Y	N	N	N	N	N	Y	1	Y	Y
84	Kaushambi	NGO	2006	16.500	Y	N	Y	N	Y	N	N	N	2	Y	2	2	N	N	Y	N	N	N	N	Y	0	Y	N	N
85	Sitapur-II	NGO	2011	21.050	Y	N	Y	N	N	N	N	N	2	N	-	-	N	N	Y	Y	N	N	N	N	Y	0	Y	N
86	Gorakhpur-II	NGO	2016	20.056	Y	Y	N	N	N	Y	N	Y	2	N	1	1	N	N	N	N	Y	N	N	N	Y	0	Y	N
G) Educational KVKs																												
87	Mathura	EDU	1984	21.000	Y	Y	Y	Y	Y	N	Y	Y	1	N	4	1	Y	N	Y	N	N	Y	N	N	Y	1	Y	N
88	Mirzapur	EDU	1984	20.000	Y	Y	Y	Y	Y	N	Y	Y	3	N	1	2	N	N	Y	N	N	N	N	Y	Y	1	N	N
89	Allahabad	EDU	1992	26.700	Y	N	Y	N	Y	N	Y	N	2	N	4	-	N	N	Y	N	N	N	N	N	Y	1	Y	N
Total					67	59	59	42	67	15	44	50	104	4	211	56	26	1	26	3	11	23	0	4	68	70	66	7

Annex-III

KVK wise Staff Position

S. No.	Name of KVK	Name of the host Organization	PC			SMS			Farm Manager			PA (Computer)			PA (Lab Tech.)			Assistant			Steno			Driver			SSS			TOTAL		
			S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
1	Bahraich-I	NDUAT, Ayodhya	1	1	0	6	3	3	1	0	1	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	11	5
2	Basti	NDUAT, Ayodhya	1	1	0	6	4	2	1	0	1	1	1	0	1	1	0	1	1	0	1	0	1	2	2	0	2	2	0	16	12	4
3	Ballia	NDUAT, Ayodhya	1	0	1	6	3	3	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	8	8
4	Mau	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	1	1	16	10	6
5	Varanasi	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	2	2	0	2	2	0	16	11	5
6	Siddharthnagar	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	0	1	1	1	0	1	1	0	1	1	0	2	0	2	2	1	1	16	9	7
7	Faizabad	NDUAT, Ayodhya	1	1	0	6	4	2	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
8	Gorakhpur-I	NDUAT, Ayodhya	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	2	0	16	12	4
9	Mahrajganj	NDUAT, Ayodhya	1	1	0	6	1	5	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	8	8
10	Sonbhadra	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	2	0	2	1	1	16	11	5
11	Azamgarh-I	NDUAT, Ayodhya	1	0	1	6	3	3	1	0	1	1	1	0	1	1	0	1	0	1	1	0	1	2	2	0	2	1	1	16	8	8
12	Barabanki	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	12	4
13	Balrampur	NDUAT, Ayodhya	1	1	0	6	4	2	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	1	1	16	12	4
14	Chandoli	NDUAT, Ayodhya	1	1	0	6	3	3	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	10	6
15	Jaunpur-I	NDUAT, Ayodhya	1	1	0	6	2	4	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	1	1	16	11	5
16	Sant Kabir Nagar	NDUAT, Ayodhya	1	1	0	6	2	4	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	11	5
17	Ambedkar Nagar	NDUAT, Ayodhya	1	1	0	6	3	3	1	0	1	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	0	2	16	9	7
18	Amethi	NDUAT, Ayodhya	1	1	0	6	2	4	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	0	2	16	9	7
19	Bahraich-II	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	2	1	1	2	1	1	16	9	7
20	Jaunpur-II	NDUAT, Ayodhya	1	1	0	6	2	4	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	0	2	16	9	7
21	Sultanpur-II	NDUAT, Ayodhya	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	0	2	16	10	6
22	Gonda-II	NDUAT, Ayodhya	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	0	2	16	10	6
23	Ghazipur-II	NDUAT, Ayodhya	1	1	0	6	2	4	1	0	1	1	0	1	1	0	1	1	1	0	1	0	1	2	1	1	2	0	2	16	5	11

S. No.	Name of KVK	Name of the host Organization	PC			SMS			Farm Manager			PA (Computer)			PA (Lab Tech.)			Assistant			Steno			Driver			SSS			TOTAL		
			S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V			
24	Shravasti	NDUAT, Ayodhya	1	0	1	6	3	3	1	0	1	1	1	0	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	4	12
25	Azamgarh-II	NDUAT, Ayodhya	1	0	1	6	2	4	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	3	13
26	Jhansi	BUAT, Banda	1	1	0	6	5	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
27	Mahoba	BUAT, Banda	1	1	0	6	4	2	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	0	2	16	11	5
28	Hamirpur	BUAT, Banda	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	16	0
29	Jalaun	BUAT, Banda	1	1	0	6	4	2	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
30	Lalitpur	BUAT, Banda	1	0	1	6	6	0	1	1	0	1	0	1	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
31	Banda	BUAT, Banda	1	1	0	6	4	2	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	12	4
32	Prayagraj-II	BUAT, Banda	1	0	1	6	0	6	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	0	16
33	Raebareli	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
34	Fatehpur	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	1	0	1	1	0	1	0	1	1	1	0	2	2	0	2	2	0	16	13	3
35	Aligarh	CSAUAT, Kanpur	1	1	0	6	3	3	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	9	7
36	Kannauj	CSAUAT, Kanpur	1	1	0	6	6	0	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	13	3
37	Etawah	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
38	Mainpuri	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	2	0	16	10	6
39	Kanpur Dehat	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	1	0	1	1	0	1	0	1	1	1	0	2	2	0	2	2	0	16	14	2
40	Firozabad	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	2	0	16	11	5
41	Lakhimpur Kheri-I	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	2	0	16	10	6
42	Farrukhabad	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
43	Hardoi-I	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
44	Mahamaya Nagar	CSAUAT, Kanpur	1	1	0	6	4	2	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	11	5
45	Kasganj	CSAUAT, Kanpur	1	1	0	6	0	6	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	2	2	0	2	2	0	16	7	9
46	Raebareli-II	CSAUAT, Kanpur	1	1	0	6	1	5	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	2	14
47	Auraiya	Sarpanch Samaj	1	1	0	6	4	2	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	1	1	16	13	3
48	Bijnor	SVPUA&T, Meerut	1	1	0	6	2	4	1	1	0	1	1	0	1	0	1	1	0	1	1	1	0	2	1	1	2	1	1	16	8	8

S. No.	Name of KVK	Name of the host Organization	PC			SMS			Farm Manager			PA (Computer)			PA (Lab Tech.)			Assistant			Steno			Driver			SSS			TOTAL		
			S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V			
49	Rampur	SVPUA&T, Meerut	1	0	1	6	4	2	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	2	0	16	12	4
50	Budaun-I	SVPUA&T, Meerut	1	1	0	6	2	4	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	1	1	2	2	0	16	10	6
51	Saharanpur	SVPUA&T, Meerut	1	0	1	6	3	3	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	2	0	16	10	6
52	Ghaziabad	SVPUA&T, Meerut	1	0	1	6	5	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	2	0	16	12	4
53	Shahjahanpur	SVPUA&T, Meerut	1	0	1	6	4	2	1	1	0	1	1	0	1	2	0	1	0	1	1	1	0	2	1	1	2	1	1	16	11	5
54	Meerut	SVPUA&T, Meerut	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	3	0	16	13	3
55	Muzaffarnagar-I	SVPUA&T, Meerut	1	0	1	6	4	2	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	10	6
56	Pilibhit	SVPUA&T, Meerut	1	0	1	6	2	4	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	9	7
57	Baghpat	SVPUA&T, Meerut	1	0	1	6	3	3	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	10	6
58	Moradabad-I	SVPUA&T, Meerut	1	1	0	6	2	4	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	1	1	2	1	1	16	8	8
59	Gautam Budha Nagar	SVPUA&T, Meerut	1	1	0	6	3	3	1	0	1	1	1	0	1	1	0	1	0	1	1	1	0	2	1	1	2	1	1	16	9	7
60	Bulandshahr	SVPUA&T, Meerut	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	1	1	16	11	5
61	Shamli	SVPUA&T, Meerut	1	1	0	6	3	3	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	1	1	2	2	0	16	7	9
62	Sambhal	SVPUA&T, Meerut	1	0	1	6	2	4	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	3	13
63	Badaun-II	SVPUA&T, Meerut	1	0	1	6	2	4	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	2	14
64	Amroha	SVPUAT, Meerut	1	0	1	6	2	4	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	1	1	2	0	2	16	4	12
65	Hapur	SVPUA&T, Meerut	1	1	0	6	3	3	1	1	0	1	1	0	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	6	10
66	Muzaffarnagar-II	SVPUA&T, Meerut	1	0	1	6	3	3	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	1	1	2	1	1	16	6	10
67	Moradabad-II	SVPUA&T, Meerut	1	0	1	6	1	5	1	0	1	1	0	1	1	0	1	1	1	0	1	1	0	2	0	2	2	1	1	16	4	12
68	Bareilly	ICAR-IVRI, Bareilly	1	0	1	6	4	2	1	1	0	1	0	1	1	1	0	1	0	1	1	1	0	2	1	1	2	1	1	16	9	7
69	Lucknow	ICAR-IISR, Lucknow	1	1	0	6	5	1	1	1	0	1	1	0	1	0	1	1	0	1	1	1	0	2	1	1	2	1	1	16	11	5
70	Lakhimpur Kheri-II	ICAR-IISR, Lucknow	1	1	0	6	2	4	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	3	13
71	Kushinagar	ICAR-IIVR, Varanasi	1	0	1	6	4	2	1	1	0	1	0	1	1	1	0	1	0	1	1	0	1	2	2	0	2	0	2	16	8	8
72	Sant Ravidas Nagar	ICAR-IIVR, Varanasi	1	1	0	6	5	1	1	1	0	1	0	1	1	1	0	1	0	1	1	0	1	2	2	0	2	0	2	16	10	6
73	Deoria	ICAR-IIVR, Varanasi	1	0	1	6	3	3	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	2	0	2	0	2	16	6	10
74	Hardoi-II	ICAR-CSSRI, Karnal	1	0	1	6	2	4	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	2	14

S. No.	Name of KVK	Name of the host Organization	PC			SMS			Farm Manager			PA (Computer)			PA (Lab Tech.)			Assistant			Steno			Driver			SSS			TOTAL		
			S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
75	Sultanpur-I	KNMT, Sultanpur	1	1	0	6	4	2	1	2	0	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	2	0	16	14	2
76	Etah	RBS College, Agra	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	16	0
77	Gonda-I	DRI, New Delhi	1	1	0	6	3	3	1	0	1	1	0	1	1	0	1	1	4	0	1	1	0	2	1	1	2	3	0	16	13	3
78	Chitrakoot	DRI, New Delhi	1	1	0	6	4	2	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	2	0	2	5	0	16	15	1
79	Pratapgarh	RASMES, Pratapgarh	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	16	0
80	Unnao	KRBSES, Unnao	1	1	0	6	6	0	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	15	1
81	Ghazipur-I	PG College, Ghazipur	1	0	1	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	15	1
82	Agra	RBS College, Agra	1	1	0	6	5	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	15	1
83	Sitapur-I	MVESS, Lucknow	1	1	0	6	3	3	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
84	Kaushambi	DBRAWS, Prayagraj	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	16	0
85	Sitapur-II	RRDCA, Amethi	1	0	1	6	5	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
86	Gorakhpur-II	GGSS, Gorakhpur	1	0	1	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	2	0	2	2	0	16	14	2
87	Allahabad	SHUATS, Prayagraj	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	16	0
88	Mirzapur	BHU, Varanasi	1	1	0	6	4	2	1	0	1	1	1	0	1	1	0	1	0	1	1	1	0	2	1	1	2	0	2	16	9	7
89	Mathura	DUVASU, Mathura	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
			89	64	25	534	327	207	89	53	37	89	58	31	89	40	50	89	57	35	89	65	24	178	125	53	178	118	65	1424	907	517

Annex-IV

HRD & Publications

1) HRD by SAUs & KVKs

Name of the SAU	Title of the training programmes	No of programmes	No. Of Participants
BUAT Banda	National webinar on Groundnut production constraint and their management in Bundelkhand region; challenges and opportunities'	1	100
	ISEE National Seminar 2021	1	5
	Scientific Goat Production	1	40
	Total	3	145
CSAUAT Kanpur	Skill Development training for SMSs	12	270
	Total	12	270
ANDUAT Ayodhya	Office Management and PFMS	1	25
	Recent Advances in Soil Analysis and Nutrient Management	1	25
	Natural Farming	1	25
	Animal Waste Integrated Farming System	1	25
	Total	4	100
NGO & other KVKs	ISEE National Seminar	1	3
	5th International Agronomy Congress	1	1
	Capacity Development Programme on Information Technology	1	12
	Transforming Indian Agriculture through Pluralistic & Innovative Extension Approaches for Self-reliant India	1	5
	Technological Interventions for Rural Entrepreneurship & Farmers Prosperity in Eastern India	1	3
	CFLD Workshop	1	1
	Workshop on use of advance tools and techniques for AAS Under GKMS	1	1
	Total	7	26
Grand Total		26	541

2) Publications by KVKs

Category	Number	No. of KVKs
Books	47	25
Training Manual	137	32
Book Chapter	101	38
Research papers	272	75
Seminar Papers	157	47
Technical bulletins	197	47
Technical reports	664	79
Others (pl. specify)	12380	62
Total	13955	-

Annex-V

Details of Research Projects and Programme

S. No.	Name of Projects/Programme	Period	PI	Co-PI/Nodal Scientist
A. Network Projects				
1.	Impact assessment of popular pulses varieties and technologies disseminated by KVKs through Cluster frontline demonstration of pulses (CFLD-P) in India	2020-22	Dr. S.K. Dubey, ICAR-ATARI, Kanpur	Dr. U.S. Gautam Dr Atar Singh Dr. Raghendra Singh Dr. Sadhna Pandey
2.	Impact Assessment of crop residue management technologies on productivity and profitability of rice-wheat system (RWS) in Northern Plains of India	2020-22	Dr. Rajbir Singh, ICAR ATARI Ludhiana	Dr. Atar Singh
3.	Impact of Technological Interventions of KVKs on Socio-Economic Empowerment and Sustainable Livelihood Security of Tribal Farmers	2020-22	Dr.A.K.Singha, Umiam	Dr. Sadhna Pandey
4.	Doubling Farmers Income (DFI) Project	2020-22	Dr. Raj Narayan, ATARI Jodhpur	Dr. Raghendra Singh
5.	Analysis of agricultural programmes in Aspirational Districts in India	2020-22	Dr.S.K.Roy, ICAR ATARI, Kolkata	Dr Atar Singh
6.	Impact of climate resilient technology interventions implemented through National Innovations in Climate Resilient Agriculture (NICRA) across different agroecological regions of India	2020-22	Dr.J.V.Prasad, ICAR ATARI Hyderabad	Dr. Atar Singh
7.	Impact of ARYA on promotion of agri-preneurship, alternative livelihoods and spin off effect	2020-22	Dr.M.J.Chandre Gowda, ICAR ATARI Bengaluru	Dr. S.K. Dubey
B. National Programme				
6.	Cluster Frontline Demonstrations (CFLD) on Pulses and Oilseeds (DAC, GOI)	2015-16 till date	Dr. U.S. Gautam	Dr Atar Singh Dr. S.K. Dubey
7.	Crop Residue Management (CRM) Project (DAC, GOI)	2015-16 to 2021-22	Dr. U.S. Gautam	Dr Atar Singh Dr. S.K. Dubey
8.	Cereal Systems Initiatives for South East Asia (CSISA)	2016-17 till date	Dr. U.S. Gautam	Dr. S.K. Dubey
9.	District Agro-Meteorology Unit (DAMU)	2017-18 till date	-	Dr. Raghendra Singh
C. ICAR Flagship Programmes				
10.	Farmer FIRST (Farm, Innovations, Resources, Science and Technology)	2015-16 to till date	-	Dr. S.K. Dubey as Member Secretary ZPMC
11.	Tribal Sub Plan/ Knowledge system & Home based Agricultural Management in Tribal Areas and Schedule Caste Sub Plan (TSP/KSHAMTA and SCSP)	2015-16 till date	-	Dr. S.K. Dubey
12.	National Innovation on Climate Resilient Agriculture (NICRA Project)	2016-17 till date	Dr. U.S. Gautam	Dr Atar Singh Dr. S.K. Dubey
13.	Mera Gaon Mera Gaurav (MGMG)	2016-17 till date	Dr. U.S. Gautam	Dr. S.K. Dubey
14.	Nutrition- sensitive Agricultural Resources and Innovation (NARI)	2020-21 till date	Dr. U.S. Gautam	Dr. Sadhna Pandey
15.	ARYA programme	2015-16 till date	Dr US Gautam	Dr S.K. Dubey
16.	Agriculture Skill Council of India (ASCI Programme)	2016-17 till date	Dr. U.S. Gautam	Dr. S.K. Dubey

Annex-VI

KVK wise Scientific Advisory Committee Meetings (SACs)

S.No.	Host/Name of KVKs	No. of SACs	Date of SACs
	CSAUAT, Kanpur		
1	Aligarh	1	14.10. 2021
2	Farrukhabad	1	11.11.2021
3	Fathehpur	1	14.10. 2021
4	Mahamayanager	1	21.10.2021
5	Kannauj	1	30.09.2021
6	Etawah	1	12.03.2021
7	Etawah	1	27.10.2021
8	Firozabad	1	23.10.2021
9	Hardoi	1	27.09.2021
10	Kanpur Dehat	1	09.09.2020
11	Raebareli	1	30-11-2021
12	Lakhimpur	1	26/10/2021
13	Mainpuri	1	29.11. 2021
14	Kasganj	1	21-09-2021
	BUAT, Banda		
15	Banda	1	28-10-2021
16	Mahoba	1	15-09-2021
17	Jalaun	1	20-09-2021
18	Hamirpur	1	16-09-2021
19	Jhansi	1	02-09-2021
20	Lalitpur	1	11-10-2021
21	Ayodhya	1	18.02.2021
22	Ambedkar Nagar	1	16.01.2021
23	Ayodhya	1	18.02. 2021
24	Azamgarh I	1	20.02. 2021
25	Bahraich II	1	02.11.2021
26	Balia	1	27.01.2021
27	Balrampur	1	06.02.2021
28	Barabanki	1	08.02.2021
29	Basti	1	18.09.2021
30	Chandauli	1	24.02.2021
31	Gazipur II	1	03.02.2021
32	Gonda II	2	02.02.2021, 07.12.2021
33	Gorakhpur	1	05.02.2021
34	Jaunpur I	1	03.02.2021
35	Jaunpur II	1	04.02.2021
36	Maharajganj	1	20.01.2021
37	Mau	1	17.02.2021
38	Sant Kabir Nagar	1	13.01.2021
39	Sravasti	1	21.02.2021
40	Sidharthnagar	1	25.02.2021

41	Sonbhadra	1	23.02.2021
42	Sultanpur II	1	22.01.2021
43	Varanasi	1	10.02.2021
	SVPUAT, Meerut		
44	Meerut	1	27.12.2021
45	Bijnor	1	18.01.2022
46	Saharanpur	1	16.12.2020
47	Muzaffarnagar-I	1	01.12.2021
48	G. B. Nagar	1	17.01.2022
49	Ghaziabad	1	29.12.2021
50	Sambhal	1	25.11.2021
51	Moradabad -I	1	24.11.2021
52	Moradabad - II	1	24.11.2021
53	Rampur	1	01.11.2021
54	Hapur	1	23.11.2021
55	Bulandshahr	1	18.12.2021
56	Badaun-I	1	09.12.2021
57	Pilibhit	1	14.11.2021
58	Amroha	1	18.10.2021
59	Shahjahanpur	1	13.12.2021
60	Shamli	1	11.01.2022
61	Muzaffarnagar-II	1	14.12.2020
62	Badaun-II	1	09.12.2021
63	Baghpat	1	26.11.2021
	NGO KVKs		
64	Agra	1	30.11.2021
65	Auraiya	1	30.12.2021
66	Etah	1	31.12.2021
67	Ghazipur-I	1	29.01.2021
68	Gonda-I	1	29.12.2021
69	Gorakhpur-II	1	26-03-2021
70	Kaushambi	1	06-10-2021
71	Pratapgarh	1	09-09-2021
72	Sitapur-II	1	26-11-2021
73	Sultanpur-I	1	22-09-2021
74	Unnao	1	13-09-2021
	ICAR KVKs		
75	Bhadohi	1	07-05-2021
76	Deoria	1	14-07-2021
77	Hardoi-II	1	25/09/2021
78	Kushinagar	1	15-07-2021
79	Lakhimpur Kheri-II	1	06.03.2021
	Educational KVKs		
80	Allahabad	1	30.11.2021
81	Mathura	1	20.03.2021
	Total	82	

Annex-VII

Detail address list of KVKs (Uttar Pradesh)

ANDUA&T, Ayodhya (25 KVKs)			
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