भाकृअनुप
ICAR

ANNUAL REPORT 2022



भाकृअनुप – कृषि प्रौद्योगिकी अनुप्रयोग अनुसंधान संस्थान (अटारी), कानपुर

ICAR-AGRICULTURAL TECHNOLOGY APPLICATION RESEARCH INSTITUTE (ATARI), KANPUR

ISO 9001:2015 Certified Institute

वार्षिक प्रतिवेदन
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EXECUTIVE SUMMARY

TRAINING PROGRAMMES

KVKs organized 9131 training courses with the participation of 209939 farmers, farm women, rural youths and extension functionaries. The farmers and farm women were represented in a proportion of 80.62 % and 19.38 % respectively. In all 169272 farmers and farm women and 22174 rural youths were provided skill training in different enterprises. Similarly, 18493 extension personnel were also trained in different areas.

A total of 624 sponsored trainings with the participation of 29212 farmers and farm women and 422 vocational trainings with participation of 9201 rural youths were organised

FRONTLINE DEMONSTRATIONS

A total of 32780 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 995 technologies were assessed and 4517 trials conducted under three categories namely, crop (3227), livestock (752) and other enterprises (538).

EXTENSION PROGRAMMES

In all 50272 extension activities with 13.10 lakh beneficiaries, 37240 mass communication extension activities, 123468 mobile advisories though 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.

SEED PRODUCTION

During the year 2022, KVKs of Uttar Pradesh produced 21833.94 q seed of cereals (16673.84 q), pulses (1829.79 q), oilseeds (1144.22 q), vegetables (1277.78 q), fodder (319.43 q), spices (56.00 q) and commercial crops (532.90 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 **2531.34** quintal of bio-products. It included vermi compost (1481.09 q) and NADEP compost (341.05 q). Besides, KVKs also produced 30.00 q bio pesticides, 5.55 q bio-fungicide and 47.37 q other bio- products.

LIVESTOCK & FINGERLING PRODUCTION

KVKs of Uttar Pradesh produced 55.61 lakh livestock strains including 872 dairy animals including cows, buffaloes, calves, goat etc by 11 KVKs; poultry (15515) including broilers, layers, duals, ducks etc by 13 KVKs; piglets (93) and fisheries (55.61 lakh) by 6 and 5 KVKs respectively. The amount of Rs 38.11 lakh was collected from the produce.

HRD AND PUBLICATIONS

A total of 41 publications including research papers (18), book chapters (13), popular articles (4), technical report (1), newsletters (4) and bulletin (1) have been published by ICAR-ATARI, Kanpur. Also under HRD 3 trainings programmes were attended by ATARI staff. In addition to this 4 training programmes were organised by ATARI for KVK staff. Under the events category 6 workshops, 62 meetings (virtual & physical) organised by ICAR-ATARI, Kanpur

KVKs also published a total of 18888 publications including 43 books (43), training manual (205), book chapter (156), abstracts (85), research papers (235), seminar papers (314), technical bulletins (2723), technical reports (365), proceedings (363) and others (14399). Under HRD programmes Directorate of Extension organised 21 programmes with the participation of 583 KVK scientists.

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 (87), Two wheeler (70), Tractor (66).

STAFF POSITION

ICAR-ATARI, Kanpur have filled up 11 staff out of total 20 vacancies. Post of RMP is filled. Out of 6 sanctioned positions in scientific cadre, 2 positions (1 Sr. Scientist and 1 Scientist) are filled up. 1 Principal Scientist, 2 Sr. Scientist 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.

In case of KVKs, out of total sanctioned post (1424), KVKs have filled up 987 posts including Head (56), Subject Matter Specialists (429), Programme Asstt. (150), Administrative (118), Auxiliary (123), Supporting (111). Filled positions are 69.31 % and vacant post lying as 30.69 %.

STATUS OF BUDGET

During the financial year 2021-22, an amount of Rs. 19197.43 lakh was utilized/released against the allotted budget of Rs. 19199.31 lakh.

PROJECTS AND SPECIAL PROGRAMMES

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

Chapter-1

INTRODUCTION & ACHIEVEMETNS 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	Lakhimpur Kheri	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, Pratatgarh				
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 (1. Bhabhar and Tarai 2. Western Plain 3. Mid Western Plain 4. South Western Semi Arid 5. Central Plain 6. Bundelkhand 7. North Eastern Plain 8. Eastern Plain and 9. 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, Lakhaimpur 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	7210	169272
	• Rural Youths	1054	22174
	• Extension Functionaries	867	18493
	Total	**9131**	**209939**
	• Sponsored Training programmes	624	29212
	• Vocational Training programmes	422	9201
2.	**Frontline Demonstrations**	**Farmers**	**Area (ha)/Units (No.)**
	• Pulses	9878	3428.89
	• Oilseeds	9286	3345.30
	• Cereals	6808	2314.18
	• Millets	149	37.50
	• Vegetables	1552	190.75
	• Fruits	111	54.17
	• Spices	106	8.55
	• Commercial	525	137.63
	• Fodder	872	94.85
	• Hybrid crops	247	20.64
	• Livestock & fishery	1511	3433 units
	• Other Enterprises	3574	3896 units
	• Farm Implements	1574	698.34
	Grand Total	**36193**	**10330.80/7329 Units**
3.	**Technology Assessment**	**Technologies**	**Trials**
	• Crops	800	3216
	• Livestock	96	701
	• Other Enterprises	81	538
	Total	**977**	**4455**
4.	**Extension Programmes**	**Number**	**Beneficiaries**
	• Extension activities	50098	1667789
	• Other extension programmes (mass comm.)	25767	mass
	• Mobile advisories	814872	4671549
	• Soil samples	24560	40064
	• Technology week celebration	8620	326491
	• RWHS & MIS	17	3268
	Total	**923934**	**6709161**
5.	**Seed Production (quintal)**	20613.90	16561
6.	**Planting materials (lakh)**	35.55	34553
7.	**Bio-Production (quintal)**	2531.34	3887
8.	**Livestock strains**	**Quantity (lakh)**	**Beneficiaries**
	• Livestock	16480	1056
	• Fisheries	5560783	376
	Total	**5577263**	**1432**
9.	**Publications (No.)**	**By KVKs**	**By ATARI**
		18888	41
10.	**HRD/meetings Programmes**	**By KVK**	**By ATARI**
	• No. of Programmes/Participants	21	3

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: 5408 covering 626.35 ha area. • Training courses: 179 and 4417 farmers benefitted • Extension activities: 187 and 7316 farmers benefitted
2.	**ARYA (Attracting & Retaining of Youth in Agriculture)** **(10 KVKs)**	• Training programmes: 50 courses with 944 participants • Entrepreneurial Units established: **568** (mushroom production-224, Fruits and vegetable processing units-1, Horticulture nursery-4, Poultry-141, Goat farming-112, Bee keeping-63, Vermicomposting-20)
3.	**CRM (Crop Residue Management)** ***(23 KVKs)***	• Awareness camp: 200 & 20843 farmers benefitted • Training programmes: 128 with 2438 participants • Demonstrations: 5006 covering 2874.00 ha • Kisan melas: 29 with 11445 farmers benefitted • Other activities (posters, banners, paintings etc): 7562 • Publicity material leaflets/ pamphlets etc distributed: 166776 • Awareness through TV & Radio: 253 • 50 exposure visit conducted by benefitting 2161 farmers • 49 field days organised by participating 2705 farmers • Total 213 advertisement published in Print media
4.	**ASCI (Agriculture Skill Council of India)** ***(42 KVKs and 6 ICAR Institute)***	• Training courses organised: 63 courses with **743** participants (each course has 200 hour duration)
5.	**Pulses Seed Hub** ***(8 KVKs)***	• Total pulses seed production: **4171.6** q (black gram 120.05 q, green gram 271.01 q, chickpea 755.74 q, field pea 2548.89 q and lentil 367.83 q)
6.	**STC (Scheduled Tribe Component)/ KSHAMTA (Knowledge Systems and Homestead Agricultural Management in Tribal Areas)** ***(8 KVKs)***	• Training programmes: 52 courses with 1695 participants • OFT: 42, FLD : 1398 • Mobile agro – advisories provided: 1142 • Participation in extension activities: 2206 • Seed Production: 2182.50 q, livestock/fingerlings: 142.02 lakh • Soil Testing: 72
7.	**SCSP (Scheduled Caste Sub Plan)** ***(10 KVKs)***	• Training programmes: 545 courses with 14364 participants • On farm Trials: 578, FLD : 7921 • Mobile agro – advisories provided: 118673 • Participation in extension activities: 59896 • Seed production: 999.01 q, planting material: 0.85 lakh, Fingerlings production: 2.04 lakh • Soil Testing: 2108
8.	**Farmer FIRST** ***(7 ICAR institutes)***	• Total demonstrations: 6682 covering 6213 families • Total 1639 extension activities by benefitting 3900 Farmers
9.	**DAMU (Distt. Agrometeorolo.gy Unit)** ***(20 KVKs)***	• Ago. Advisory services : 104 • Total 9 training programmes with 3 awareness programme • Total 624 bulletins, 21 articles, 72 WhatsApp messages and 28 field visits made
10.	**Natural farming** ***(52 KVKs)***	• No. of awareness / training programmes organized: 262 • No. of Participants: 16185 • No. of demonstrations organized at farms of KVKs: 280

		• No. of farmers visited demonstration plots: 16606
11.	**IFS (Integrated Farming System)** ***(13 KVKs)***	• Total IFS units established: 31 • Total 35 demonstrations and 45 trainings were conducted for 831 and 909 farmers, respectively
12.	**Aspirational Districts Scheme** ***(8 KVKs)***	• Trainings: 49 for 1155 farmers and 101 office staff • Seed & Planting material distributed: 300.72 q, 49814
13.	**NARI (Nutrition- Sensitive Agricultural Resources and Innovation)** ***(89 KVKs)***	• Trainings (courses: 276, Participants: 6371) • Extension programmes (Number 219, Participants: 8345) • Nutritional Garden units established: 1146 and 1870 farmer benefitted • Bio-fortified crops: 61 and 1473 farmers benefitted • Value addition: 60 and 969 farmers were benefitted.
14.	**NEMA (New Extension Methodologies and Approaches)** ***(15 KVKs)***	• Socio-economic Impact Evaluation of Pusa Basmati: 3 districts (21 villages & 11 blocks) • Household selected: 121
15.	**SBA (Swachha Bharat Abhiyaan)** ***(All 89 KVKs)***	• Programmes organised: **1587** with **33778** participants
16.	**MGMG (Mera Gaon Mera Gaurav)** ***(13 ICAR institutes & DU)***	• Groups or team formed: 61 • Scientists involved: 275 • Village's covered: 346 • Field activities conducted : 290 • Messages /Advisory send: 435 • Farmers benefitted: 2500
17.	**RWHS (Rainwater Harvesting Structures)** ***(35 KVKs)***	• Training programmes : 17 • Demonstrations: 324 • Visits: 3268 farmers and 86 officials.
18.	**Drone Project** ***(10 KVKs, 4 SAUs & 11 ICAR Institutes)***	• No. of Kisan Drones purchased by PIC: 6 • Total 1500 ha area covered for 6000 demonstrations









1.5 LINKAGES AND COORDINATION

1. SAUs (SVPUAT, CSAUAT, ANDUAT & BUAT) have been assigned reporting of 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 is held at State level with Principal Secretary Agriculture & Director Agriculture for development of 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 is being implemented in collaboration with IGFRI, Jhansi.
7. Linkage with National Rain fed Area Authority for development of various models including watershed of Bundelkhand region.
8. Senior level interactions and meetings organized with line department officials for better convergence & linkage.

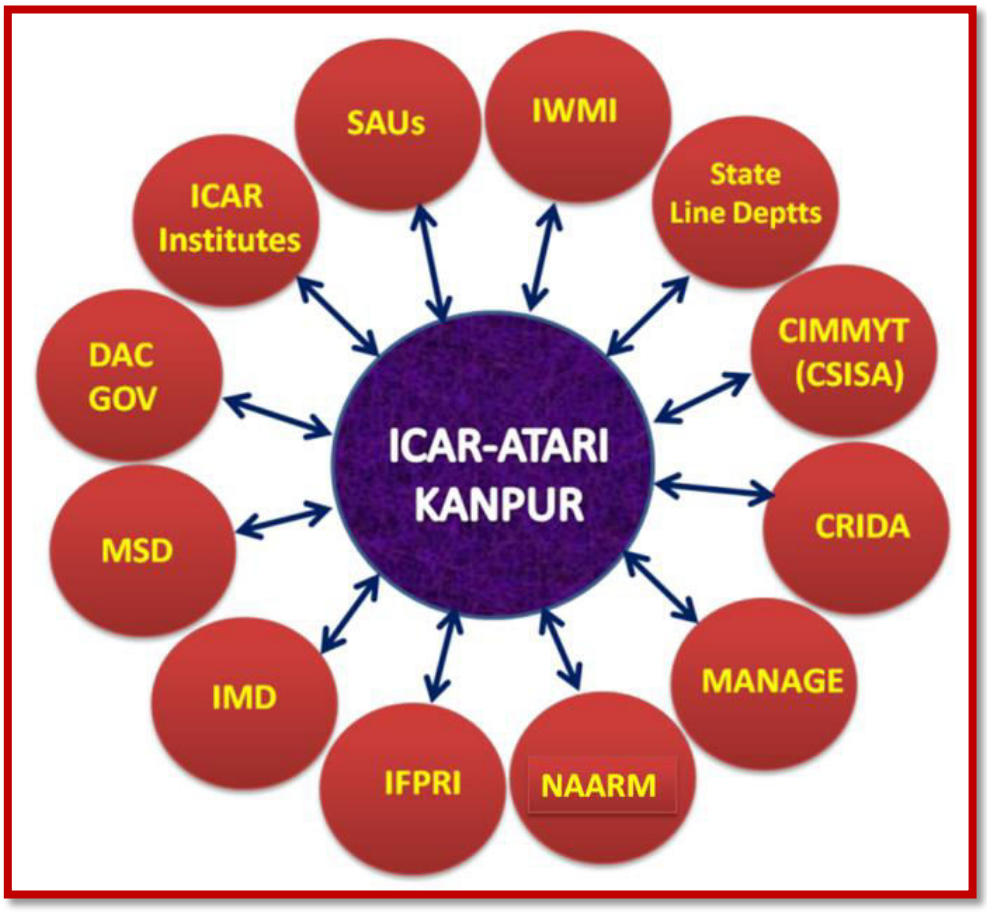


Fig-1 : Linkages of ICAR-ATARI, Kanpur with different organizations/Institutes

Chapter-2

TRAINING PROGRAMMES

KVKs organized 9131 training courses with the participation of 209939 farmers, farm women, rural youths and extension functionaries. The farmers and farm women were represented in a proportion of 80.62 % and 19.38 % respectively. In all 169272 farmers and farm women and 22174 rural youths were provided skill training in different enterprises. Similarly, 18493 extension personnel were also trained in different areas.

A total of 624 sponsored trainings with the participation of 29212 farmers and farm women and 422 vocational trainings with participation of 9201 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	7210	126897	42375	169272
Rural Youths	1054	16910	5264	22174
Extension Functionaries	867	14875	3618	18493
Total	**9131**	**158682**	**51257**	**209939**

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

Type of training	Courses	Male	Female	Total
Sponsored Trainings	624	24563	4649	29212
Vocational Trainings	422	7499	1702	9201
Total	**1046**	**32062**	**6351**	**38413**

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	3104	40075	10855	50930	14449	6449	20898	54524	17304	71828
Farm Women	OFF	4106	52737	14986	67723	19636	10085	29721	72373	25071	97444
	Total	**7210**	**92812**	**25841**	**118653**	**34085**	**16534**	**50619**	**126897**	**42375**	**169272**
Rural Youths	ON	765	8870	2333	11203	3070	1295	4365	11940	3628	15568
	OFF	289	3716	999	4715	1254	637	1891	4970	1636	6606
	Total	**1054**	**12586**	**3332**	**15918**	**4324**	**1932**	**6256**	**16910**	**5264**	**22174**
Extension	ON	560	7268	1818	9086	2341	946	3287	9609	2764	12373
Functionaries	OFF	307	4223	625	4848	1043	229	1272	5266	854	6120
	Total	**867**	**11491**	**2443**	**13934**	**3384**	**1175**	**4559**	**14875**	**3618**	**18493**
Grand Total	**ON**	**4429**	**56213**	**15006**	**71219**	**19860**	**8690**	**28550**	**76073**	**23696**	**99769**
	OFF	**4702**	**60676**	**16610**	**77286**	**21933**	**10951**	**32884**	**82609**	**27561**	**110170**
	Total	**9131**	**116889**	**31616**	**148505**	**41793**	**19641**	**61434**	**158682**	**51257**	**209939**

2.1 FARMERS AND FARM WOMEN

Under trainings for farmers and farm women category, total of 7210 courses were conducted by KVKs of the Uttar Pradesh with the participation of 169272 farmers and farm women (Table 2.4). Maximum courses (1533) and participants (36280) were related to crop production. The other areas of trainings were horticulture (1232 courses and 28035 participants); livestock production management (837 courses and 20345 participants); women empowerment (943 courses and 21938 participants); soil health and fertility management (691 courses and 16598 participants); agricultural engineering (253 courses and 5520 participants); plant protection (780 courses and 17717 participants); fisheries (163 courses and 3899 participants); production of input at site (336 courses and 8286 participants); capacity building & group dynamics (369 courses and 8609 participants); agro forestry (94 courses and 2045 participants).

Table-2.4 Training of farmers and farm women

Area of training	Courses	Male	Female	Total
Crop Production	1533	31421	4859	36280
Horticulture	1232	23896	4139	28035
Soil Health & Fertility Management	691	13947	2651	16598
Livestock Production & Management	837	16926	3419	20345
Home Science/ Women empowerment	943	1884	20054	21938
Agril. Engineering	253	4804	716	5520
Plant Protection	780	15358	2359	17717
Fisheries	163	3305	594	3899
Production of Input at site	336	6707	1579	8286
Capacity Building & Group Dynamics	369	6916	1693	8609
Agro forestry	94	1733	312	2045
Total	**7210**	**126897**	**42375**	**169272**

2.1.1 Crop Production

With respect to crop production, 1533 training courses were organized in Uttar Pradesh with the participation of 36280 farmers and farm women. Integrated crop management related 272 courses were organized in which 6297 farmers and farm women participated; followed by 193 courses on weed management (4302 participants), 168 on seed production (3624 participants), 137 courses on Integrated nutrient Management (3022 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	193	3809	493	4302
RCT	124	2443	322	2765
Cropping Systems	139	3192	398	3590
Crop Diversification	69	1350	206	1556
Integrated Farming	76	1625	298	1923
Micro irrigation/irrigation	48	1052	299	1351

Seed production	168	3178	446	3624
Nursery management	81	1706	206	1912
Integrated Crop Management	272	5398	899	6297
Soil & water conservation	61	1522	278	1800
Integrated nutrient Management	137	2722	300	3022
Production of organic inputs	67	1462	342	1804
Others	98	1962	372	2334
Total	**1533**	**31421**	**4859**	**36280**

2.1.2 Horticulture

Training on production technologies of vegetables, fruits, ornamental plants, plantation crops, tuber crops, spices and medicinal plants were organized. 598 courses on vegetables involving 13692 and 351 courses on fruit with the participation of 7995 were held. Similarly, in case of ornamental plants, organization of 86 courses with participation of 1985 persons was ensured. In the area of plantation crops, tuber crops, spices, medicinal & other crops 33, 60, 50 and 54 courses were organized with participation of 779, 1358, 1060 and 1166 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	182	3693	631	4324
Off-season vegetables	81	1614	269	1883
Nursery raising	128	2301	471	2772
Exotic vegetables	20	409	104	513
Export potential vegetables	24	470	116	586
Grading and standardization	38	704	152	856
Protective cultivation	70	1288	237	1525
Others	55	976	257	1233
Total (a)	598	11455	2237	13692
b) Fruits				
Training and Pruning	40	792	131	923
Layout and Management of Orchards	67	1328	192	1520
Cultivation of Fruit	73	1482	197	1679
Management of young plants/orchards	58	1229	137	1366
Rejuvenation of old orchards	52	954	147	1101
Export potential fruits	7	134	40	174
Micro irrigation systems of orchards	24	467	68	535
Plant propagation techniques	15	312	52	364
Others	15	301	32	333
Total (b)	351	6999	996	7995
c) Ornamental Plants				
Nursery Management	41	808	158	966
Management of potted plants	7	147	14	161
Export potential of ornamental plants	11	213	50	263
Propagation techniques of ornamental Plants	15	289	57	346
Others	12	236	13	249

Total (c)	86	1693	292	1985
d) Plantation crops				
Production and Management technology	17	357	25	382
Processing and value addition	13	229	95	324
Others	3	62	11	73
Total (d)	33	648	131	779
e) Tuber crops				
Production and Management technology	55	1046	161	1207
Processing and value addition	4	113	13	126
Others	1	20	5	25
Total (e)	60	1179	179	1358
f) Spices				
Production and Management technology	41	723	140	863
Processing and value addition	5	90	24	114
Others	4	78	5	83
Total (f)	50	891	169	1060
g) Medicinal and Aromatic Plants				
Nursery management	16	351	20	371
Production and management technology	28	496	88	584
Post harvest technology & value addition	8	117	18	135
Others	2	67	9	76
Total (g)	54	1031	135	1166
GT (a-g)	**1232**	**23896**	**4139**	**28035**

2.1.3 Soil Health and Fertility Management

Total of 691 courses were attended by 16598 participants. The courses in the area of soil fertility management (113), integrated nutrient management (149), soil & water testing (77), production & use of organic inputs (78), balanced use of fertilizer (60) and micro-nutrients deficiency in crops (51), nutrient use efficiency (32), etc. were organized with the objectives to create awareness, knowledge and skill among farmers to address various issues. These trainings involved 2706, 3471, 1692, 1746, 1392, 1129 and 852 participants respectively were benefitted.

Table 2.7: Training on soil health and fertility management

Area of training	Courses	Male	Female	Total
Soil fertility management	113	2247	459	2706
Integrated water management	49	990	164	1154
Integrated nutrient management	149	2941	530	3471
Production and use of organic inputs	78	1491	255	1746
Management of problematic soils	35	686	165	851
Micro nutrient deficiency in crops	51	985	144	1129
Nutrient use efficiency	32	730	122	852
Balance use of fertilizer	60	1195	197	1392
Soil & water testing	77	1428	264	1692
others	47	1254	351	1605
Total	**691**	**13947**	**2651**	**16598**

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	189	3760	814	4574
Poultry Management	76	1534	322	1856
Piggery Management	14	278	38	316
Rabbit Management	6	135	9	144
Animal Nutrition Management	121	2489	490	2979
Disease Management	198	3956	940	4896
Feed & fodder technology	133	2703	434	3137
Production of quality animal products	35	650	181	831
Others	65	1421	191	1612
Total	**837**	**16926**	**3419**	**20345**

2.1.5 Women Empowerment

A range of courses (943) related to women empowerment were organized with the participation of 21938 farm women. Household food security by kitchen gardening courses (188) were attended by highest number of farm women (4456), followed by courses on value addition (141) attended by total of 3242 participants, women and child care (116) attended by 2712 farm women, etc. The farm women also showed interest in courses like storage losses, gender mainstreaming through SHGs, processing & cooking, 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	188	700	3756	4456
Design & development of low/minimum cost diet	55	39	1267	1306
Development of high nutrient efficiency diet	86	243	1689	1932
Minimization of nutrient loss in processing	55	128	1108	1236
Processing & cooking	41	20	852	872
Gender mainstreaming through SHGs	32	199	771	970
Storage loss minimization techniques	45	99	960	1059
Value addition	141	201	3041	3242
Women empowerment	49	46	1016	1062
Location specific drudgery reduction technologies	48	47	1039	1086
Rural crafts	28	8	635	643
Women and child care	116	55	2657	2712
Others	59	99	1263	1362
Total	**943**	**1884**	**20054**	**21938**

2.1.6 Agricultural Engineering

Total of 253 courses in various aspects related to farm machinery, implements and its maintenance, post harvest and value addition were organized by KVKs, benefiting 5520. farmers and farm women. Maximum courses on repair & maintenance of farm machinery & implements (52) were organized benefiting 1090 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	67	1392	108	1500
Installation and maintenance of micro irrigation systems	28	579	32	611
Use of plastics in farming practices	25	280	290	570
Production of small tools & implements	9	171	30	201
Repair & maintenance of farm machinery & implements	52	1038	52	1090
Small scale processing & value addition	17	318	41	359
Post harvest technology	19	314	130	444
Others	36	712	33	745
Total	**253**	**4804**	**716**	**5520**

2.1.7 Plant Protection

Under Plant Protection total 780 courses were organized with the participation of 17717 persons. The highlights of these programmes and others each course were on IPM (334), IDM (222), bio control of pests and diseases (126), production of bio control agents & bio pesticides (49).

Table-2.11: Training on plant protection

Areas of training	Courses	Male	Female	Total
Integrated Pest Management	334	6425	1079	7504
Integrated Disease Management	222	4488	603	5091
Bio-control of pests and diseases	126	2552	341	2893
Production of bio control agents & bio pesticides	49	1003	135	1138
Others	49	890	201	1091
Total	**780**	**15358**	**2359**	**17717**

2.1.8 Fish Production

The courses on integrated fish farming (43) and composite fish culture (50) were mainly organized with the participation of 1108 and 1150 persons respectively. Overall 163 courses attracted participation of 3899 persons.

Table-2.12: Training on fish production

Areas of training	Courses	Male	Female	Total
Integrated fish farming	43	968	140	1108
Carp breeding and hatchery management	12	227	47	274
Carp fry and fingerling rearing	22	448	64	512
Composite fish culture	50	969	181	1150
Hatchery management and culture of freshwater prawn	4	76	15	91

Breeding and culture of ornamental fishes	5	80	50	130
Portable plastic carp hatchery	2	48	14	62
Pen culture of fish and prawn	2	38	10	48
Edible oyster farming	3	80	10	90
Fish processing and value addition	14	249	55	304
Others	6	122	8	130
Total	**163**	**3305**	**594**	**3899**

2.1.9 Production of inputs at site

Total 336 courses on this theme attracted participation of 8286 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	83	1626	244	1870
Planting material production	25	523	82	605
Bio-agents production	16	366	78	444
Bio-pesticides production	13	240	60	300
Bio-fertilizer production	12	235	49	284
Vermi-compost production	42	885	105	990
Organic manures production	20	391	95	486
Production of fry and fingerlings	1	18	0	18
Production of Bee-colonies and wax sheets	5	112	18	130
Small tools and implements	5	113	27	140
Production of livestock feed and fodder	12	241	59	300
Production of Fish feed	2	40	8	48
Mushroom Production	48	936	447	1383
Apiculture	13	283	216	499
Others	39	698	91	789
Total	**336**	**6707**	**1579**	**8286**

2.1.10 Capacity Building and Group Dynamics

369 courses were organized benefiting 8609 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	70	1312	301	1613
Group dynamics	50	938	173	1111
Formation and Management of SHGs	94	1721	541	2262
Mobilization of social capital	33	492	139	631
Entrepreneurial development of farmers/youths	79	1651	385	2036
WTO and IPR issues	8	165	22	187
Others	35	637	132	769
Total	**369**	**6916**	**1693**	**8609**

2.1.11 Agro-forestry

In this area, 94 courses were organized benefiting 2045 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	27	474	83	557
Nursery management	33	534	68	602
Integrated Farming Systems	28	597	139	736
Others	6	128	22	150
Total	**94**	**1733**	**312**	**2045**

2.2 TRAINING OF RURAL YOUTHS

Total of 1094 courses involving 22174 persons were conducted. The highest participation was attracted towards the programmes like seed production (119), mushroom production (94), value addition (85), training and pruning of orchards (87), nursery management of horticultural crops (68), vermi culture (41) and organic inputs production (65). Other courses viz protected cultivation, commercial fruit production, planting material production, bee keeping, 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	68	1142	219	1361
Training and pruning of orchards	87	1599	591	2190
Protected cultivation of vegetable crops	25	454	68	522
Commercial fruit production	14	272	20	292
Integrated farming	35	617	73	690
Seed production	119	2029	360	2389
Production of organic inputs	65	1003	188	1191
Planting material production	24	482	75	557
Vermi-culture	41	743	126	869
Mushroom Production	94	1689	472	2161
Bee-keeping	59	1127	190	1317
Sericulture	4	68	11	79
Repair and maintenance of farm machinery & implements	22	416	22	438
Value addition	85	547	1134	1681
Small scale processing	11	96	133	229
Post Harvest Technology	17	146	125	271
Tailoring and Stitching	20	50	332	382
Rural Crafts	21	50	310	360
Production of quality animal products	15	281	134	415
Dairying	53	908	187	1095
Sheep and goat rearing	41	787	149	936
Piggery	9	282	13	295
Rabbit farming	3	74	6	80
Poultry production	33	522	94	616
Ornamental fisheries	3	50	15	65

Composite fish culture	14	273	26	299
Shrimp farming	3	57	18	75
Pearl culture	6	112	25	137
Cold water fisheries	4	97	3	100
Fish harvest and processing technology	7	121	20	141
Fry and fingerling rearing	2	32	3	35
Other	50	784	122	906
TOTAL	**1054**	**16910**	**5264**	**22174**

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	120	2553	150	2703
Integrated Pest Management	103	1899	157	2056
Integrated Nutrient management	106	2063	221	2284
Rejuvenation of old orchards	33	700	31	731
Protected cultivation technology	42	778	78	856
Production and use of organic inputs	56	1236	114	1350
Care & maintenance of farm machinery & implements	24	452	36	488
Gender mainstreaming through SHGs	13	206	51	257
Formation and Management of SHGs	22	376	147	523
Women and Child care	50	165	948	1113
Low cost and nutrient efficient diet designing	29	74	523	597
Group Dynamics and farmers organization	12	177	87	264
Information networking among farmers	8	98	75	173
Capacity building for ICT application	18	351	45	396
Management in farm animals	37	650	91	741
Livestock feed and fodder production	48	856	149	1005
Household food security	26	171	387	558
Other	120	2070	328	2398
Total	**867**	**14875**	**3618**	**18493**

2.4 SPONSORED TRAINING PROGRAMMES

Under sponsored training programmes, total 624 courses were organised by involving 29212 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 and productivity of crops	116	5171	883	6054
Commercial production of vegetables	63	2339	302	2641
Fruit Plants	38	1182	171	1353
Ornamental plants	22	1197	113	1310
Spices crops	6	433	46	2663
Soil health and fertility management	30	879	140	1019
Production of Inputs at site	16	669	117	786
Methods of protective cultivation	16	673	33	1805
Others	29	1333	276	1609
Total	336	13876	2081	15957
Post harvest technology and value addition				
Processing and value addition	22	1791	464	2255
Others	5	114	129	243
Total	27	1905	593	2498
Farm machinery				
Farm machinery, tools and implements	13	729	93	822
Others	11	353	37	390
Total	24	1082	130	1212
Livestock and fisheries				
Livestock production and management	58	2207	338	2545
Animal Nutrition Management	21	1028	146	1174
Animal Disease Management	18	743	50	3719
Fisheries Nutrition	5	123	38	161
Fishery Management	7	343	46	389
Others	15	464	136	550
Total	124	4908	754	5662
Home Science				
Household nutritional security	6	40	195	235
Economic empowerment of women	8	35	167	202
Drudgery reduction of women	1	0	100	437
Others	1	22	50	72
Total	16	97	512	609
Agricultural Extension				
Capacity Building and Group Dynamics	60	2206	552	2758
Others	37	489	27	516
Total	97	2695	579	3274
Grand Total	**624**	**24563**	**4649**	**29212**

2.5 VOCATIONAL TRAINING PROGRAMMES

Under vocational training programmes, total 422 courses were organised by involving 9201participants. 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	6	102	10	112
Commercial fruit production	8	179	21	200
Commercial vegetable production	12	219	34	253
Integrated crop management	25	454	86	540
Organic farming	17	302	27	329
Others	12	168	29	197
Total	80	1424	207	1631
Post harvest technology and value addition				
Value addition	28	241	256	497
Others	3	30	10	40
Total	31	271	266	537
Livestock and fisheries				
Dairy farming	29	652	126	778
Composite fish culture	8	194	16	210
Sheep and goat rearing	23	516	75	591
Piggery	7	197	3	200
Poultry farming	15	306	42	348
Others	13	234	34	268
Total	95	2099	296	2395
Income generation activities				
Vermicomposting	26	449	95	544
Production of bio-agents, bio-pesticides,	7	143	32	175
bio-fertilizers etc.	2	32	3	35
Repair and maintenance of farm machinery	11	197	16	213
and implements	1	15	0	15
Rural Crafts	6	53	26	79
Seed production	27	541	92	633
Sericulture	9	227	5	232
Mushroom cultivation	38	761	165	926
Nursery, grafting etc.	16	231	95	326
Tailoring, stitching, embroidery, dying etc.	8	30	134	164
Agril. para-workers, para-vet training	2	40	0	40
Others	33	575	174	749
Total	186	3294	837	4131
Agricultural Extension				
Capacity building and group dynamics	25	337	76	413
Others	5	74	20	94
Total	30	411	96	507
Grand Total	**422**	**7499**	**1702**	**9201**

TRAINING PROGRAMMES



In-service training: KVK Agra



Vocational Training: KVK-I Bahraich



Training:on vermicompost: KVK Bareilly



Training on Poshan Thali: KVK Basti



Training SHG: KVK Etah



Training on Mali: KVK-I Gorakhpur

TRAINING PROGRAMMES



Training on value addition: KVK Hamirpurc



Training on Dairy: KVK Lucknow



Training on value addition: KVK Lucknow



Training cum demo on paddy plantation: KVK Bijnour



On Campus Training : KVK Bijnour



Off campus training on seed production: KVK Sonbhadra

Natural Farming Training



Training: KVK Amroha



KVK: Bahraich I



Training: KVK Etawah



Training: KVK Etah



Training: KVK Gonda



Training: KVK Ghazipur I

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 play important role to showcase and promote the latest varieties and other technologies related to pulses, oilseeds, cereals, vegetables, fruits, etc. to enhance the production and productivity. A total of 36193 frontline demonstrations were organized out of which on CFLD pulses (9878) & oilseeds (9286), cereals (6808), millets (149), vegetables (1552), fruits (111), spices (106), commercial (525), fodder (872), hybrid crops (247), livestock & fishery (1511), other enterprises (3574), farm Implements (1574). Total area covered under CFLD on pulses & oilseeds was 3428.89 ha and 3345.30 ha respectively. Under FLD other than pulses and oilseeds total area covered was 3556.61 ha. In case of FLD on livestock strains and other enterprises, total units covered was 3433 and 3896 units respectively. Details are given in Table-3.1.

Table 3.1 : Physical achievement of frontline demonstrations

S.No.	Enterprise	Demo	Area (ha)/units
a) CFLD on Pulses & Oilseeds			
1	Pulses	9878	3428.89
2	Oilseeds	9286	3345.30
	Total (a)	**19164**	**6774.19**
b) FLD other than pulses & oilseeds			
3	Cereals	6808	2314.18
4	Millets	149	37.50
5	Vegetables	1552	190.75
6	Fruits	111	54.17
7	Spices	106	8.55
8	Commercial	525	137.63
9	Fodder	872	94.85
10	Hybrid crops	247	20.64
11	Livestock & fishery	1511	3433
12	Other Enterprises	3574	3896
13	Farm Implements	1574	698.34
	Total (b)	**17029**	**3556.61**
	Grand Total (a+b)	**36193**	**10330.80/7329 Units**

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 3428.89 ha involving 9878 farmers. The crop wise performance under CFLD pulses is exhibited in Table-3.2 & 3.3

Table-3.2: Crop wise performance under CFLD on pulses

Name of crop	No. of KVKs	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Pigeonpea	54	2229	739.20	14.80	11.66	26.86
Blackgram	50	1721	618.75	9.82	7.23	35.80
Greengram	36	1218	389.91	10.00	7.99	25.14
Chickpea	54	1997	672.12	20.70	17.45	18.67
Fieldpea	9	385	110.41	18.59	14.52	28.06
Lentil	61	2328	898.50	13.04	9.93	31.36
Grand Total (Pulses)	**-**	**9878**	**3428.89**	-	-	-

Table-3.3: Thematic area wise economic performance under CFLD on pulses

Name of crop	No. of KVKs	Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
		Gross cost	Gross Return	Net return	BCR	Gross cost	Gross Return	Net return	BCR
Pigeonpea	54	40415	129795	89380	3.21	38260	99583	61323	2.60
Blackgram	50	20247	59245	38998	2.93	18795	47264	28469	2.51
Greengram	36	20615	69226	48610	3.36	19440	58486	39046	3.01
Chickpea	54	24528	95511	70983	3.89	22805	78330	55525	3.43
Fieldpea	9	27626	86263	58637	3.12	24900	68173	43273	2.74
Lentil	61	19700	66675	46975	3.38	18453	51014	32561	2.76

Pigeon pea: The 54 KVKs conducted 2229 demonstrations on pigeon pea crop by covering an area of 739.2 ha, exhibited yield realization of 14.80 q/ha which was 26.86 % higher than local check with net return of Rs. 89380/ha. Total 17 KVKs attained more than 14.00 q/ha of yield and 8 KVKs reported yield of more than 11.00 q/ha in the demonstrations.

Black gram: 50 KVKs laid out 1721 demonstrations on 618.75 ha area, exhibited yield levels of 9.82 q/ha against 7.23 q/ha in local checks which was 35.80 % higher. A net return of Rs. 38998/ha was realized in demonstrations.

Green gram: Green gram related technologies were demonstrated by 36 KVKs with 1218 demonstrations on 389.91 ha area. This crop is mainly grown as summer crop with average yield of 10.0 q/ha in demonstrations against 7.99 q/ha in local check with 25.14 % increase. A net return of Rs. 48610/ha was obtained from demonstrations.

Chickpea: The 54 KVKs conducted 1997 demonstrations on chickpea by covering an area of 672.12 ha, exhibited yield of 20.70 q/ha against 17.45 q/ha of local check showing an increase of 18.67 % higher than local check with net return of Rs. 70983/ha. 25 KVKs realized more than 18.00 q/ha yield.

Field pea: 9 KVKs conducted 385 demonstrations on an area of 110.40 ha. On an average 18.59 q/ha yield of field pea was recorded in demonstrations, which was 28.06 % higher over local check. Net return of Rs. 58637/ha was reported.

Lentil: Sixty one KVKs laid out 2328 demonstrations on 898.5 ha area with lentil crop, exhibited 13.04 q/ha of productivity in demonstrations which was 31.36 % higher than local check (9.93 q/ha). A net return of Rs. 46975 q/ha was realized in demonstrations.

3.1.2 Cluster FLD on Oilseeds

Technology demonstrations on oilseeds were organized on an area of 3345.30 ha involving 9286 farmers. The crop wise information of CFLD oilseeds is exhibited in Table-3.4 & 3.5

Table-3.4: Thematic area wise performance under CFLD on oilseeds

Name of crop	No. of KVKs	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Groundnut	21	875	314.5	17.29	14.23	21.45
Sesamum	59	1787	645	6.40	4.79	33.59
Mustard	89	5942	2112.2	20.88	16.29	28.21
Linseed	5	96	36.6	10.70	8.17	30.95
Toria	12	365	150	11.86	9.12	30.04
Soyabean	7	171	71	17.53	13.76	27.40
Sunflower	3	50	16	12.04	9.25	30.16
Grand Total (Oilseeds)	**-**	**9286**	**3345.30**	**-**	**-**	**-**

Table-3.5: Thematic area wise economic performance under CFLD on oilseeds

Name of crop	No. of KVKs	Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
		Gross cost	Gross Return	Net return	BCR	Gross cost	Gross Return	Net return	BCR
Groundnut	21	30204	94428	64224	3.13	28545	80149	51604	2.81
Sesamum	59	16634	48891	32257	2.94	15333	37766	22433	2.46
Mustard	108	28258	93851	65593	3.32	24713	71643	46929	2.90
Linseed	5	21764	51922	30157	2.39	20000	40006	20006	2.00
Toria	12	21838	67416	45578	3.09	20390	49997	29607	2.45
Soyabean	7	28411	70303	41892	2.47	26666	55529	28863	2.08
Sunflower	3	23017	70955	47938	3.08	21408	54547	33139	2.55
Total/Avg.	**3**	**23017**	**70955**	**47938**	**3.08**	**21408**	**54547**	**33139**	**2.55**

Mustard: The demonstrations on mustard were laid out at 5942 farmers' fields at 2112.20 ha area by all the KVKs. On an average 20.88 q/ha of yield was recorded in demonstrations, which was 28.21% higher over local check (16.29 q/ha). A net return of Rs. 65593/ha was realized in demonstrations.

Sesamum: The demonstrations on sesame were laid out by 59 KVKs at 1747 farmers' fields on 645.00 ha area. On an average 6.40 q/ha of yield was recorded in demonstrations, which was 33.59% higher over local check (4.79 q/ha). A net return of Rs. 32257/ha was realized in demonstrations.

Groundnut: A total of 875 demonstrations were organized on 314.50 ha area in groundnut crop (summer & kharif season) with productivity level of 17.29 q/ha which was 21.45 % higher over local practice. The net return of Rs. 64224/ha was realized in demonstrations while it was Rs. 51604 in local check.

Sunflower : Three KVKs conducted 50 demonstrations on sunflower by covering an area of 16.00 ha, exhibited yield of 12.04 q/ha against 9.25 q/ha of local check showing an increase of 30.16 % higher than local check with net return of Rs. 47938 /ha.

Toria: Twelve KVKs conducted demonstrations in an area of 150 ha area with involvement of 365farmers. On an average 11.86 q/ha yield of Toria was recorded in demonstrations, which was 30.04 % higher over local check (9.12 q/ha). Net return of Rs. 45578/ha was recorded.

Linseed : The Five KVKs conducted 96 demonstrations on linseed by covering an area of 36.60 ha, exhibited yield of 10.70 q/ha against 8.17 q/ha of local check showing an increase of 30.95 % higher than local check with net return of Rs. 30157 /ha.

Soybean : The Seven KVKs conducted 171 demonstrations on linseed by covering an area of 71 ha, exhibited yield of 17.53 q/ha against 13.76 q/ha of local check showing an increase of 27.40 % higher than local check with net return of Rs. 41892 /ha.

3.2 FLD other than oilseeds and pulses

3.2.1 FLD on Cereal crops

A total of 6808 demonstrations were demonstrated in an area 2314.18 ha on cereals covering important cereal and millets crops like paddy, wheat, barley, maize and bajra in all the cropping seasons. Details are given in Table-3.6.

Table 3.6: FLD on Cereals and Millets

Name of crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Paddy	40	Varietal	1158	337.20	39.49	30.05	31.65
Paddy	8	ICM	412	218.50	54.30	40.32	34.68
Paddy	18	INM	259	88.70	51.23	40.63	26.09
Paddy	16	IPM	210	77.10	48.35	32.87	47.09
Paddy	16	IWM	465	181.30	47.29	41.04	15.53
Paddy	6	RCT	106	40.00	36.90	31.17	13.92
Paddy	15	IDM	158	55.50	52.99	35.78	48.09
Total/Avg.	**89**		**2768**	**998.30**	**47.22**	**35.98**	**31.01**
Scented Rice	6	Varietal	116	42.60	89.75	75.51	22.91
Total/Avg.	**6**		**116**	**42.60**	**89.75**	**75.51**	**22.91**
Coarse Rice	3	Varietal	48	10.33	54.14	48.21	9.76
Coarse Rice	1	INM	10	4.00	46.00	40.00	24.00
Coarse Rice	1	IPM	20	4.00	62.50	53.96	9.65
Coarse Rice	3	IWM	30	12.00	57.50	44.50	22.47
Coarse Rice	2	IDM	18	7.20	56.50	43.50	23.00
Total/Avg.	**10**		**126**	**37.53**	**55.33**	**46.03**	**17.78**
Wheat	52	Varietal	1739	568.15	43.13	33.50	19.85
Wheat	7	FM	117	41.15	47.25	39.57	14.27
Wheat	10	INM	117	44.10	43.35	37.23	20.15

Wheat	25	ICM	826	226.95	46.46	39.55	19.91
Wheat	16	IWM	277	108.40	50.73	40.00	13.69
Wheat	7	RCT	198	77.90	47.13	40.28	15.56
Wheat	7	IDM	140	56.00	47.25	40.95	15.38
Wheat	4	IPM	38	15.50	48.50	38.12	22.60
Total/Avg.	**89**		**3452**	**1138.15**	**46.73**	**38.65**	**17.68**
Barley	3	Varietal	76	24.00	42.63	34.38	24.39
Total/Avg.	**3**		**76**	**24.00**	**42.63**	**34.38**	**24.39**
Maize	5	Varietal	64	18.50	37.90	27.75	34.07
Maize	1	FM	8	3.00	46.28	39.75	22.35
Maize	2	INM	24	5.60	51.85	45.68	13.36
Maize	2	ICM	20	7.00	46.23	39.65	22.29
Maize	1	IPM	5	2.00	26.48	22.36	18.42
Total/Avg.	**11**		**121**	**36.10**	**41.75**	**35.04**	**22.10**
Bajra	6	Varietal	108	29.00	26.17	22.08	22.46
Bajra	1	INM	5	2.00	19.88	16.16	23.00
Bajra	1	ICM	26	5.00	11.00	8.20	34.15
Bajra	1	IDM	10	1.50	15.80	11.80	28.80
Total/Avg.	**9**		**149**	**37.50**	**18.21**	**14.56**	**27.10**
Grand Total	**-**		**6808**	**2314.18**	**-**	**-**	**-**

Paddy: The demonstrations on 7 thematic areas were conducted at 2768 farmers' fields on **998.30** ha area by 89 KVKs. The average yield of **47.22** q/ha was achieved in demonstrations, which was **31.01**% higher over local check (**35.98** q/ha). The highest yield of 54.30 q/ha was recorded in ICM component followed by 52.99 q/ha under IDM.

Wheat: The wheat demonstrations on different thematic areas were conducted at 3452 farmers' fields covering an area of **1138.15** ha. On an average **46.73** q/ha of yield was recorded in demonstrations, which was 17.68 % higher over local check (**38.65** q/ha). The highest yield of 50.73 q/ha was recorded under IWM.

Barley: Two KVKs laid out barley demonstrations at 76 farmers' fields covering an area of **24.00** ha. On an average **42.63** q/ha of yield was obtained over local check (34.38 q/ha) which was 24.39 % higher over local check.

Maize: Seven KVKs laid out maize demonstrations at 121 farmers' field covering an area of **36.10** ha. On an average **41.75**q/ha of yield was obtained over local check (35.04 q/ha) which was 22.10 %. The highest yield of 51.85 q/ha was recorded under INM.

Millets:

Bajra: The demonstrations on varietal evaluation and integrated crop management of bajra were laid out at 149 farmers' fields on **37.50** ha area. On an average **18.21** q/ha of yield was recorded in demonstrations, which was 27.10 % higher over local check (14.56 q/ha). The highest yield of 31.56 q/ha was recorded under varietal evaluation.

3.2.2 FLD on Vegetable crops

A total of 1552 demonstrations on 190.75 ha were laid out on vegetables covering 20 important crops in all the three crop seasons. Under FLD on vegetable crops, a total of 89 KVKs conducted 1552 demonstrations on 190.75 ha area. Average demo yield (q/ha) and percentage increase in yield obtained under bottle gourd (363.88, 26.28 %), bitter gourd (133.75, 42.04 %), tomato (374.56, 23.62

%,), brinjal (250.55, 40.28 %,), okra (120.07, %,), vegetable Pea (87.70, 23.17 %,), onion (278.46, 20.49 %), cabbage (384.50, 26.53 %), cauliflower (305.96, 20.31 %,), cucumber (230.90, 30.38 %), garlic (158, 5.00 %), pointed gourd (130, 17.48 %), pumpkin (489.17, 19.20 %), radish (357.50, 21.98 %), sponge gourd (172.81, 11.71 %,), and carrot (120.50, 19.65 %) and percentage increase in yield obtained were, and 44.48 % respectively. Thematic wise details are shown in following Table 3.7.

Table 3.7: FLD on Vegetables

Name of Crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Bottlegourd	4	Varietal	36	2.45	322.90	263.30	22.63
Bottlegourd	3	ICM	15	1.00	455.00	325.00	40.00
Bottlegourd	5	INM	25	2.00	302.50	265.00	14.10
Bottlegourd	2	IPM	24	4.00	375.13	268.70	28.40
Total/Avg.	**14**		**100**	**9.45**	**363.88**	**280.50**	**26.28**
Bittergourd	2	Varietal	5	2.00	205.00	140.00	46.40
Bittergourd	1	IPM	12	5.00	62.50	45.40	37.67
Total/Avg.	**3**		**17**	**7.00**	**133.75**	**92.70**	**42.04**
Tomato	12	Varietal	159	12.20	407.30	280.40	46.00
Tomato	1	ICM	30	1.70	590.50	514.20	12.90
Tomato	1	INM	4	1.00	195.00	178.00	9.55
Tomato	5	IPM	41	8.13	385.00	310.00	24.10
Tomato	2	RCT	9	1.63	295.00	235.00	25.53
Total/Avg.	**22**		**243**	**24.66**	**374.56**	**303.52**	**23.62**
Chilli	7	Varietal	76	10.86	78.00	64.00	21.87
Chilli	1	ICM	10	0.20	159.50	119.00	34.00
Total/Avg.	**8**		**86**	**11.06**	**118.75**	**91.50**	**27.94**
Brinjal	6	Varietal	34	7.00	93.50	77.90	20.17
Brinjal	4	ICM	27	2.63	165.00	105.00	57.14
Brinjal	2	INM	15	1.20	175.00	150.00	16.66
Brinjal	1	IPM	4	1.00	568.70	340.20	67.16
Total/Avg.	**13**		**80**	**11.83**	**250.55**	**168.28**	**40.28**
Broccoli	1	Varietal	10	0.50	-	-	-
Broccoli	1	ICM	10	1.00	-	-	-
Total/Avg.	**2**		**20**	**1.50**	**-**	**-**	**-**
Okra	12	Varietal	149	14.87	136.20	108.60	25.00
Okra	2	ICM	30	8.60	115.80	82.00	41.21
Okra	1	IPM	4	0.13	118.26	109.55	7.95
Okra	1	RCT	10	1.00	110.00	95.00	18.51
Total/Avg.	**16**		**193**	**24.60**	**120.07**	**98.79**	**23.17**
Vegetable Pea	10	Varietal	105	19.64	98.00	88.00	18.07
Vegetable Pea	3	ICM	171	13.70	78.40	62.80	19.90
Vegetable Pea	3	INM	26	3.85	86.70	70.20	23.50
Total/Avg.	**20**		**302**	**37.19**	**87.70**	**73.67**	**20.49**

Onion	15	Varietal	194	15.70	270.33	221.88	23.07
Onion	4	ICM	46	2.56	192.00	138.00	39.13
Onion	1	INM	5	0.40	312.00	265.00	17.73
Onion	1	IPM	10	4.00	339.50	269.05	26.21
Total/Avg.	**21**		**255**	**22.66**	**278.46**	**223.48**	**26.53**
Capsicum	1	IPM	10	5.00	-	-	-
Total/Avg.	**1**		**10**	**5.00**	-	-	-
Cabbage	1	Varietal	17	11.00	408.00	335.00	21.79
Cabbage	1	INM	15	2.00	361.00	293.00	18.83
Total/Avg.	**3**		**32**	**13.00**	**384.50**	**314.00**	**20.31**
Cauliflower	3	Varietal	24	3.00	424.33	291.85	42.75
Cauliflower	2	ICM	15	1.50	239.50	191.00	25.30
Cauliflower	7	INM	40	4.90	215.00	165.00	30.30
Cauliflower	2	RCT	4	0.50	345.00	265.00	23.18
Total/Avg.	**14**		**83**	**9.90**	**305.96**	**228.21**	**30.38**
Cucumber	6	Varietal	30	2.50	234.90	218.50	6.90
Cucumber	2	INM	20	2.40	226.90	210.80	3.10
Total/Avg.	**9**		**50**	**4.90**	**230.90**	**214.65**	**5.00**
Garlic	1	Varietal	10	2.00	161.00	134.00	20.14
Garlic	2	ICM	15	2.50	155.00	135.00	14.81
Total/Avg.	**3**		**25**	**4.50**	**158.00**	**134.50**	**17.48**
Colocasia	1	RCT	4	1.00	-	-	-
Total/Avg.	**1**		**4**	**1.00**	-	-	
Pointed gourd	1	IPM	15	3.50	130.00	115.00	19.20
Total/Avg.	**2**		**15**	**3.50**	**130.00**	**115.00**	**19.20**
Pumpkin	1	Varietal	3	1.36	812.50	687.50	15.30
Pumpkin	1	ICM	4	0.50	215.00	190.00	13.15
Pumpkin	2	IPM	20	1.00	440.00	320.00	37.50
Total/Avg.	**4**		**27**	**2.86**	**489.17**	**399.17**	**21.98**
Radish	2	Varietal	29	1.10	357.50	320.00	11.71
Total/Avg.	**2**		**29**	**1.10**	**357.50**	**320.00**	**11.71**
Spongegourd	3	Varietal	35	3.00	312.00	254.00	22.80
Spongegourd	2	ICM	2	0.40	93.50	77.90	20.17
Spongegourd	3	INM	17	1.00	112.94	95.88	15.98
Total/Avg.	**8**		**54**	**4.40**	**172.81**	**142.59**	**19.65**
Carrot	1	Varietal	5	0.05	142.00	88.00	61.36
Carrot	1	ICM	5	0.50	99.00	77.60	27.60
Total/Avg.	**2**		**10**	**0.55**	**120.50**	**82.80**	**44.48**
Grand Total	**89**	**-**	**1552**	**190.75**	-	-	-

3.2.3 FLD on fruit crops

Under FLD on fruits component, a total of 17 KVKs conducted 111 demonstrations on 54.17 ha area by conducting demonstrations on banana, guava, mango, papaya, muskmelon and water melon with an average yield of 640.00, 35.60, 120.15, 839.17, 155.50 and 355.00 respectively. Percentage increase in yield of banana (25.40 %), guava (16.50 %), mango (13.70 %), papaya (31.28 %), muskmelon (29.50%) and water melon (30.52 %) were obtained. Details are shown in Table 3.8.

Table 3.8: FLD on fruits

Name of Crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Banana	1	Varietal	19	3.96	640.00	510.00	25.40
Total/Avg.	**1**		**19**	**3.96**	**640.00**	**510.00**	**25.40**
Guava	2	IPM	18	5.00	35.60	30.60	16.50
Total/Avg.	**3**		**18**	**5.00**	**35.60**	**30.60**	**16.50**
Mango	1	Varietal	2	10.00	111.58	96.56	15.56
Mango	3	IPM	22	19.00	120.15	103.70	13.70
Total/Avg.	**4**		**24**	**29.00**	**120.15**	**103.70**	**13.70**
Papaya	3	Varietal	19	2.13	1305.64	948.52	37.65
Papaya	1	IDM	4	5.00	372.70	248.40	24.90
Total/Avg.	**4**		**23**	**7.13**	**839.17**	**598.46**	**31.28**
Musk Melan	1	Varietal	4	1.08	155.50	120.00	29.50
Total/Avg.	**1**		**4**	**1.08**	**155.50**	**120.00**	**29.50**
Watermelon	3	Varietal	17	2.00	355.00	272.00	30.52
Total/Avg.	**3**		**17**	**2.00**	**355.00**	**272.00**	**30.52**
Grand Total (Fruits)	**17**	**-**	**111**	**54.17**	-	-	-

3.2.4 FLD on spices

Under FLD on spices a total of 10 KVKs conducted 106 demonstrations on 8.55ha area by conducting demonstrations on turmeric, garlic and coriander with an average yield of 152.00 q/ha, 105.00 q/ha, and 13.23 q/ha respectively. Percentage increase in yield of Turmeric (27.38%), garlic (19.10 %) and coriander (23.81 %) were obtained.

Table 3.9: FLD on spices

Name of Crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Turmeric	2	Varietal	25	2.20	190.00	143.25	32.87
Turmeric	2	ICM	15	1.35	114.00	89.00	21.90
Total/Avg.	**4**		**40**	**3.55**	**152.00**	**116.13**	**27.38**
Garlic	1	IPM	10	2.00	105.00	85.50	19.10
Total/Avg.	**1**		**10**	**2.00**	**105.00**	**85.50**	**19.10**
Coriander	4	Varietal	46	2.60	13.20	10.20	29.82
Coriander	1	IPM	10	0.40	13.25	11.25	17.80
Total/Avg.	**5**		**56**	**3.00**	**13.23**	**10.73**	**23.81**
Grand Total (Spices)	**10**	**-**	**106**	**8.55**	**-**	**-**	

3.2.5 FLD on commercial crops

Under FLD on commercial crops, a total of 525 demonstrations were laid out on 137.63 ha by 53 KVKs (Table 3.10).

Table 3.10: FLD on commercial crops

Name of Crop	No. of KVKs	Thematic area	No. of Farmers	Area (ha)	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Potato	7	Varietal	23	1.75	351.20	252.80	40.58
Potato	2	ICM	60	2.00	287.00	249.00	13.24
Potato	5	INM	37	8.40	397.00	342.00	14.61
Potato	4	IPM	20	7.00	320.60	290.50	10.36
Potato	6	IDM	82	29.00	667.40	566.60	17.79
Potato	6	RCT	35	9.00	298.25	263.60	13.14
Total/Avg.	**30**	-	**257**	**57.15**	**386.91**	**327.42**	**18.29**
Sugarcane	1	Varietal	10	2.40	1350.00	1250.00	8.00
Sugarcane	2	ICM	18	4.40	1500.00	980.00	15.06
Sugarcane	7	INM	72	28.00	899.09	760.10	18.02
Sugarcane	8	IPM	85	40.00	751.88	680.95	10.16
Sugarcane	1	RCT	5	2.00	980.00	937.50	4.53
Total/Avg.	**19**	-	**190**	**76.8**	**1096.19**	**921.71**	**11.15**
Marigold	4	Varietal	78	3.68	242.00	185.00	30.81
Total/Avg.	**4**	-	**78**	**3.68**	**242.00**	**185.00**	**30.81**
G.T. (Commercial)	**53**	-	**525**	**137.63**	-	-	-

Potato: A total of 257 demonstrations laid out by 30 KVKs with three interventions namely Varietal, ICM, INM, IPM, IDM and RCT on 57.15 ha area. The average yield of 386.91 q/ha with an increase of 18.29 % over local check (327.42 q/ha) was obtained.

Sugarcane: 19 KVKs conducted demonstration at 190 farmers' fields with five interventions namely Varietal, ICM, INM, IPM and RCT in an area of 76.80 ha resulted yield of 1096.19 q/ha against 921.71 q/ha in local check showing an increase of 11.15 %. The highest yield of 1500.00 q/ha obtained under ICM.

Marigold: Four KVK conducted 78 demonstrations in an area of 3.68 ha with Varietal intervention. The average yield was obtained 242.00 q/ha in comparison to local checks where it was 185.00 q/ha, showing an increase of 30.81 %.

3.2.6 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 3.11)

Table 3.11: 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**
Jower(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**	**-**	**-**	**-**

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.

3.2.7 FLD on Hybrid crops

The seven KVKs laid out demonstrations on hybrid varieties of paddy, bajra, okra and nappier at 247 farmers' fields in an area of 20.64 ha. Performance of these hybrid crops are depicted in following Table (3.12)

Table 3.12: FLD on hybrid crops

Name of Crop	No. of KVKs	Thematic area	No. of farmers	Area	Demo Yield (q/ha)	Check yield (q/ha)	% increase in yield
Paddy	1	Varietal	23	6.00	65.30	59.95	9.09
Bajra	1	Varietal	30	7.50	21.45	18.50	15.95
Bajra	1	INM	5	2.00	33.14	29.99	10.50
Total/Avg. (Cereals)	**3**		**35**	**9.50**	**27.30**	**24.25**	**13.23**
Okra	1	IPM	10	2.00	190.00	147.00	29.25
Total/Avg. (Veg.)	**1**		**10**	**2.00**	**190.00**	**147.00**	**29.25**
Nappier	2	Varietal	69	4.00	402.70	328.50	22.59
Nappier	1	ICM	133	5.14	2800.00	2400.00	305.00
Total/Avg. (Fodder)	**3**		**202**	**9.14**	**1601.35**	**1364.25**	**163.80**
G.T. (Hybrid Crops)	**7**	-	**247**	**20.64**	**-**	**-**	**-**

3.2.8 FLD on livestock & fishery

Demonstrations on different interventions on livestock were carried out. A total of 1511 demonstrations were laid out on enhancing milk yield, disease management, nutritional management & Diary, etc. 11 KVKs have conducted 316 demonstrations on cattle, 22 KVKs on Buffalo with 676 demonstrations, 5 KVK on goat and sheep with 136 demonstrations and 5 KVKs on poultry with 61 demonstrations.

Table 3.13: FLD on livestock

Category	No. of KVKs	No. of Demonstrations	No. of Units
Buffalo	22	676	1246
Cattle	11	316	902
Sheep & Goat	5	136	129
Calf	5	80	148
Poultry	5	61	758
Composite fish culture	10	242	250
Total	**58**	**1511**	**3433**

3.2.9 FLD on other enterprises

A total of 74 KVKs conducted 3574 demonstrations on 3896 units. Enterprises covering units value addition (170), Kitchen Gardening (2452), Buttom Mushroom (132), vermin compot (148), Oyster mushroom (117), storage of grain (600), and women empowerment (277) with demonstrations 230, 2472, 157, 178, 157, 95, 285 respectively.

Table 3.14: FLD on other enterprises

Category	No. of KVKs	No. of Farmer	No. of units
Value addition	13	230	170
Kitchen Gardening	35	2472	2452
Button Mushroom	5	157	132
Vermi Compost	4	178	148
Oyster Mushroom	6	157	117
Storage of grain	2	95	600
Women empowerment	9	285	277
Total	**74**	**3574**	**3896**

3.2.10 FLD on farm implements

A total of 27 KVKs demonstrated farm implements zero tillage (354), paddy drum (29), laser land leveller (10), paddy strow (17), serrated sickle (10), maize sheller (5), seed drill (64), fertilizer broadcaster (19), happy seeder (291), wheel hand hoe (152) and others (623) covering an area of 698.34 ha by involving total 1574 farmers.

Table 3.15: FLD on farm implements

No. of KVKs	No. of KVKs	No. of Farmer	Area (ha)
ZT Machine	4	354	120.00
Paddy Drum	2	29	8.00

Laser land leveler	1	10	4.00
paddy strow	1	17	20.08
Serrated sickle	1	10	10.00
Maize Sheller	2	5	5.00
Seed drill	3	64	24.00
Fertilizer Broadcaster	1	19	0.48
Happy seeder	6	291	115.20
Wheel Hand hoe	2	152	68.63
Others	4	623	322.95
Total	**27**	**1574**	**698.34**

CFLD on Pulse Crops



CFLD on Chickpea: KVK Amethi



CFLD on Chickpea: KVK Varanasi



CFLD on Chickpea: KVK Bareilly



CFLD on pigeonpea: KVK Bhadohi



CFLD on lentil: KVK Chandauli



CFLD on Chickpea: G B Nagar

CFLD on Pulse Crops



CFLD on Greengram: KVK Etawah



CFLD on greengram: KVK Hamirpur



CFLD on Chickpea: KVK Jalaun



CFLD on chickpea: KVK Jaunpur I



CFLD on pigeonpea: KVK Sultanpur II



CFLD on greengram: KVK Mirzapur

CFLD on Oilseed crops



CFLD on Sesamum: KVK Amethi



CFLD on Sesamum: KVK Jhansi



CFLD on Mustard: KVK Chandauli



CFLD on Mustard: KVK Etawah



CFLD on Mustard: KVK Jaunpur I



CFLD on mustard: KVK Bahraich I

CFLD on Oilseed crops



CFLD on Sesamum: KVK Sitapur I



CFLD on mustard: KVK Saharanpur



CFLD on Groundnut: KVK Shahjahanpur



CFLD on Mustard: KVK Pratapgarh



CFLD on Soybean: KVK Lakhimpur



CFLD on mustard: KVK Meerut

FLD other than Oilseed and Pulses



FLD on super seeder: KVK Amethi



FLD on paddy: KVK Basti



FLD on wheat: KVK Bijnaor



FLD on Chappan Kaddu: KVK Firozabad



FLD on cauliflower: KVK Ghaziabad



FLD on brinjal: KVK Ghazipur II

FLD other than Oilseed and Pulses



FLD on potato: KVK Gorakhpur I



FLD on bottle gourd: KVK Hamirpur



FLD on Potato: KVK Hapur



FLD on Potato: KVK Kannauj



FLD on Paddy: KVK Kasganj



FLD on wheat: KVK Shravasti

Natural Farming (Demonstrations)



KVK Mahoba



KVK: Kasganj



KVK Etawah



KVK Mau



KVK Bijnaor



KVK Kaushambi

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 situtations. Total 977 technologies were assessed and 4455 trials conducted under three categories namely, crop (3216), livestock (701) and other enterprises (538) 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	800	3216
Livestock	96	701
Other enterprise	81	538
Total	**977**	**4455**

4.1 CROP RELATED TECHNOLOGY ASSESSMENT

KVKs of Zone III of Uttar Pradesh conducted on-farm trials in 12 major thematic areas. Total of 803 technologies were tested with involvement of 3227 farmers. Cereals, pulses, oilseeds, vegetables, fruits, cash crops, etc. were assessed under twelve thematic areas namely Varietal Evaluation (241), integrated pest management (110), integrated nutrient management (129), integrated disease management (83), integrated crop management (102), weed management (58), resource conservation technologies (41), drudgery reduction (13), integrated farming system (3), Information & communication technology (14), Storage Technology (2) and farm mechanization (7), etc.

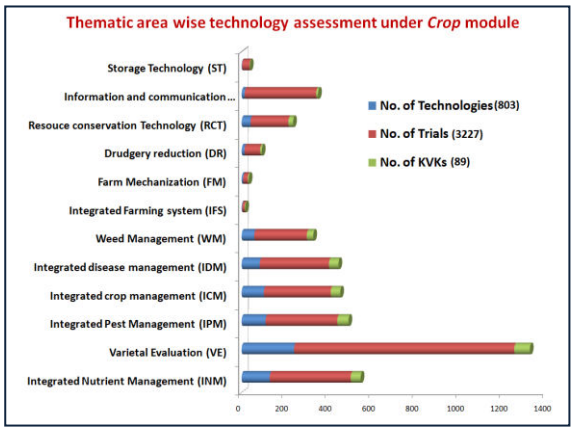


Table-4.2 Crop related technologies assessed by KVKs

Thematic Area	Number of Crops	No. of Technologies	No. of Trials	No. of KVKs
Integrated Nutrient Management (INM)	83	129	373	46
Varietal Evaluation	159	241	1014	72
Integrated Pest Management (IPM)	69	110	330	52
Integrated crop management (ICM)	56	102	308	44
Integrated disease management (IDM)	56	83	319	44
Weed Management	45	58	242	30
Farm Mechanization (FM)	7	7	21	5
Drudgery reduction (DR)	9	13	72	8
Resouce conservation Technology (RCT)	33	41	174	22
Information and communication technology (ICT)	10	14	329	9
Storage Technology (ST)	2	2	34	2
Total	**529**	**800**	**3216**	**89**

4.2 ASSESSMENT OF LIVESTOCK TECHNOLOGIES

A total of 111 technologies were assessed under livestock management by KVKs of Zone III Uttar Pradesh with active participation of 752 partner farmers (Table-4.3). The technologies related to different thematic areas like feed and fodder management (23), nutritional management (29), disease management (22), production &management (14), dairy management (8), evaluation of breeds (7), composite fish culture (6) and health management (2) were assessed.

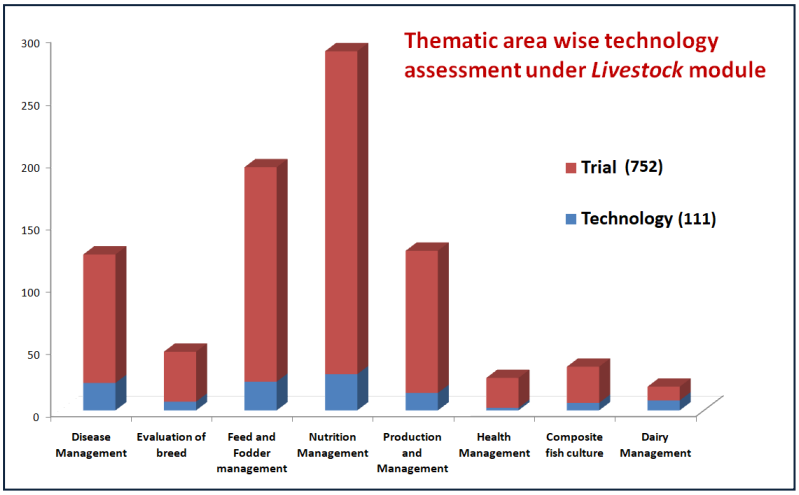


Table 4.3: Assessment of livestock technologies

Thematic Area	Enterprises	Technology	No. of animals	No. of KVKs
Disease Management	Cow, Buffalo, goat, calf,	22	103	19
Feed and Fodder management	Cattle, Buffalo , fodder	23	172	17
Nutrition Management	Cattle, Buffalo and Goat	29	259	34
Production and Management	Goat	14	114	14
Health Management	Cow, Buffalo, goat, calf,	2	24	5
Composite fish culture	Fishery	6	29	7
Total		**96**	**701**	**-**

4.3 ASSESSMENT OF TECHNOLOGIES RELATED TO ENTERPRISES

Thematic areas like value addition (27), drudgery reduction (9), household food security (14), women empowerment (8), farm machinery (7), nutritional gardening (15) and small scale income generation (1) were taken up for assessment. 538 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.

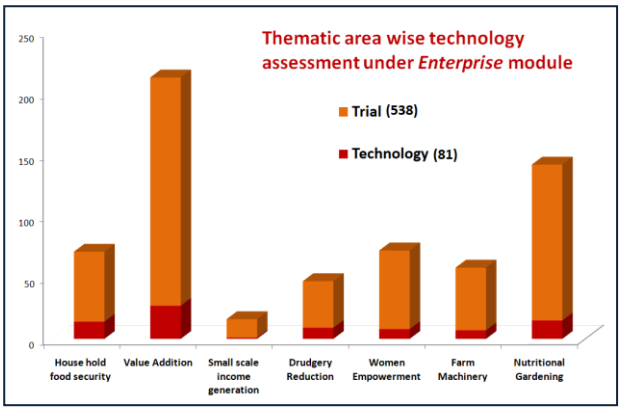


Table 4.4: Assessment of various enterprises

Thematic Area	Enterprises	Technology	Trial	No. of KVKs
House hold food security	Crops, Vegetables	14	57	6
Value Addition	Paneer, aonla, Badi, Flour	27	186	26
Small scale income generation	Honey Production, Composite Fish Culture	1	15	1
Drudgery Reduction	Small implements, proper management of farm operations	9	38	6
Women Empowerment	Skill Development	8	64	3
Farm Machinery	Mechanizations	7	51	2
Nutritional Gardening	Kitchen Gardening	15	127	10
Total		**81**	**538**	**54**

4.4 RESULTS OF SELECTED ON FARM TRIALS

4.4.1 VARIETAL EVALUATION

Problem definition: Low Productivity of Timely Sown Wheat (KVK Bijnor)

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 DBW-303 and HD-2967 as check. The sowing dates of these varieties are 10 to 20 November 2021 with 05 to 10 April 2022 harvesting dates also. The results revealed that yield increase of Timely sown wheat varieties 7.2 percent over farmers practice. The variety DBW-303 gave highest yield of 50.60 qt. per ha with net return of Rs. 96990.00 and BCR of 3.0. The others technical data as given below:

- Variety DBW-303 takes more or less same crop duration as comparison to HD-2967.
- The lodging in DBW-303 is less in comparison HD-2967 (5-7%)
- Karnal bunt incidence in DBW-303 is none while it is about 3-15% in HD-2967.

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 (HD-2967)	01 (10 farmers field)	47.20	---	5-7	3-15	88210.00	2.79
T_2- DBW-303		50.60	7.2	2-5	0	96990.00	3.00





Problem definition: Higher cost and labour intensive cultivation of rice (KVK Bareilly)

Technology Assessed: Direct Sowing of Rice by Multi-crop planter.

KVK, Bareilly conducted on-farm trial to assess the performance of Direct Seeded Rice to reduce the cost of cultivation of rice. Rice is a major crop of the district having 1.2-1.4 lakh ha area, almost all the area is under transplanted rice which is labour intensive and costly. Therefore, direct seeding of rice by Multi Crop Seed drill is done in 2.0 ha area in the fields of 5 farmers and the weeds were managed by Bispyriback sodium @ 250ml/ha at 20-25 DAS.

Effect of Direct Seeded Rice and Weed Control with Bispyribac Sodium

Technology Option	No.of trials	Yield (qt./ha)	Weed Population/sq.m.	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T-1: Transplanted Rice	5	45.25	9.2	-	47500	1.90
T-2: Direct Seeded Rice by Multi Crop Seeder		43.90	15.4	-2.98	37250	2.51

Economic Details:

Treatments	No. of Replications	Productivity (q/ha)	Cost of Cultivation (Rs./ha)	Gross Income (Rs.)	Net Income (Rs./ha)	B:C Ratio
Transplanted Rice (Weed control with Butachlor) (Farmers Practice)	5	45.25	48750	*90500*	41750	1.86
Direct Seeded Rice (Weed control with Bispyribac sodium) (Recommended Practice)		43.90	40200	87800	47600	2.18

Farmers Reaction: Farmers reported that the cost of cultivation of Direct Seeded Rice reduced drastically with only 2.98 percent reduction in yield as received from transplanted rice. Weed population was higher in DSR due to poor rainfall from sowing to reproductive stage. Sowing in low lying fields and good rainfall is very important for better results.

Problem definition: Low production of local species (KVK Baghpat)

Technology Assessed: Evaluation of improved variety of vegetable pea

KVK, Baghpat conducted an on-farm trial to assess effect of improved variety on vegetable pea production. Production of pea variety PSM-05 was found quite effective in terms of high yield as compared to farmer's practice (local pea variety Arkil) (65.0 q/ha) with net return of Rs. 3.62 lakh.

Screening of pea varieties for the production:

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs. in lakh./ha)
Use of local pea variety Arkil (Farmer's practice)	03	65.0	2.73
Use of improved pea variety PSM-05		80.5	3.62





Problem definition: Low Productivity Sugarcane due to high disease infestations (KVK Bijnor)

Technology Assessed: Evaluation of newly released high yielding Sugarcane varieties against disease resistance.

The KVK Bijnor conducted On-farm trial on Sugarcane varieties to find out suitable high yielding Sugarcane varieties for better yield with disease resistance at farmer's field situation. The varieties tested were CoS-13235, CoLk-14201, and Co-0238 as check. The Sowing dates of these varieties are 05 to 30 March 2021 with 10 to 25 March, 2022 harvesting date also. The results revealed that yield increase of sugarcane varieties ranged between 1.27 to 2.54 percent over farmers practice. The variety CoS-13235 gave highest yield of 1210.00 qt. per ha with net return of Rs. 277750.00 and BCR of 3.40. The others technical data as given below:

- The top borer incidence in Cos-13235 is less (10-12%) in comparison Co-0238 (25-45%) and CoLk-14201 (14-28%)
- Red root incidence in Cos-13235 is less while it is about 35-55% in Co-0238.

Evaluation of newly released high yielding variety

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Insect incidence (%)	Disease incidence (%)	Cost of cultivation (Rs./ha)	Net Return (Rs./ha)	B:C Ratio
T_1- Local (Co-0238)	05	1180.00	--	25-45	35-55	128500.00	255000.00	2.98
T_2- CoS-13235		1210.00	2.54	10-12	0-5	115500.00	277750.00	3.40
T3-CoLk-14201		1195.00	1.27	14-28	0-8	116500.00	271875.00	3.33





Problem definition: Low Yield of Brinjal **Technology Assessed:** Assessment of suitable HYV of Brinjal

Krishi Vigyan Kendra, Chandauli in Uttar Pradesh conducted on-farm trial to enhance the production and productivity of Brinjal crop/ha. Area in distric Chandauli due to lack of HYV of Brinjal production and productivity may be decrease. After examination of this condition KVK Chandauli conduct a varietal Trail of Brinjal with Kashi Sandesh.

Technology Option	No.of trials	Yield (qt./ha)	Cost of Cultivation/ha (Rs)	Gross Cost(Rs.)	Net Return (Rs./ha)	Increase in Yield (%)	B:C Ratio
T_1 – Use of Local Variety (Ankur)	03	260.00	50000	104000	54000	-	2.08
T_2 – Use of Kashi Sandesh		310 .00	50000	124000	74000	6.89	2.48

Result: It is found that Kashi Sandesh gives better performance in terms of Cost of cultivation & production also. And it is recommended that Kashi Sandesh is best option for vegetable growers of chandauli district wit B:C ratio 1: 2.48/ha.

4.4.2 INTEGRATED NUTRIENT MANAGEMENT

Problem definition: Low yield of Chilli due to Nutrients deficiency (KVK Ayodhya)

Technology Assessed: Effect of nutrients management on Chilli production

KVK Ayodhya conducted on-farm trial to assess the yield potential of Chilli US 917 varieties to improve the yield and economics of growers as very low yield and profit earned with the use of micronutrient @ 4g per litter water spray at 25 & 45 DAT.

Technology Option	No. of trials	Yield (q./ha)	Increase in yield (%)	Gross Cost (Rs./ha)	Gross Return (Rs./ha)	BC Ratio
T1-Chilli hybrid varieties	5	88	-	55000	240000	3.36
T2-Chilli hybrid US 917 + 2 spray of micronutrient @ 4g per litter water DAT 25 & 45		120	36.36	65000	360000	4.5

Problem Identified: Farmers of eastern UP did not get potential yield of wheat due to deficiency of phosphorus and potash at reproductive stage.

Technology Assessed: Assessment of effect of water soluble fertilizer Mono Potassium Phosphate (0:52:34 WSF)

Result: The findings of wheat presented in table showed that maturity of treated plot was altered and delayed 5 days was recorded over untreated plots even productive tillers are not varied markedly. Thousand grain weight and yield data were varied between each other and overall spraying of 0:52:34 @ 10g/liter of water at flowering stage were found effective to enhanced yield and economic parameters.

Effect of Mono Potassium Phosphate 0:52:34 WSF on yield and economics of wheat

Technology options	No. of Trials	No. of effective tillers/m^2	Days taken to maturity	Thousand grain weight (g)	Yield (q/ha)	% increase in yield	Net return (Rs/ha)	BCR
T_1- FP -Wheat grown without WSF 0:52:34 at reproductive stage	04	364.7	142	42.3	40.1	-	44552	2.23
T_2 – Spraying of WSF 0:52:34 @ 10g/liter of water at reproductive stage (Flowing stage)		362.9	147	43.6	46.8	16.7	55202	2.41

Cost of cultivation Rs./ha. T_1 – 36250, T2 – 39100 Sale rate Rs. 2015/q

Problem definition: Low Yield of Paddy

Technology Assessed: Integrated Nutrient Management in Paddy Crop

Rate @ Rs.3000.00 per qt.

Technology Option	No. of trials	Yield (qt/ha)	Increase in yield %	Gross cost (Rs.)	Gross return Rs.	Net Return Rs.	B:C
T_1 – Farmers' practice : (N 100 Kg :P 30 Kg :K- 0)	03	40.7	-	52100	122100	70000	2..34
T_2 – Use of Fertilizers on the basis of Soil Testing		48.8	16.6	54600	146400	91800	2.68

(Dose of INM is essentially required)

Result: Paddy is an important crop of district Firozabad in Kharif season. The increase percentage of high yielding variety T_2. 16.6 % followed by T_1 (farmers practices). The maximum net return Rs. 91800 was found in T_2 against lowest return Rs. 70000. So the B:C ratio 2.68 was found in T_2 and Minimum B:C ratio 2.34 was found in T_1 Farmers practice.

Problem definition: High cost of production and higher no. of unfilled grain (KVK GB Nagar)

Technology Assessed: To assess water soluble fertilizers on Basmati paddy yield and cost of production (Kharif 2022)

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	No. of filled Grain /ear head	Net Return (Rs./ha)	B:C Ratio
T_1 - Farmers practice {120:60:0 kg/ha NPK}	05	42.0	-	44	32900.00	1.50
T_2 - 75% RFD (120:60:40:25 kg NPKZn/ha)as basal + 2 spray of NPK (0:52:34) @ 2.0 kg/acre		44.6	6.2	52	40600.00	1.80

Soil Testing Result of Soil Sample of Basmati paddy

pH	EC	Organic Carbon %	Available Phosphorus	Available Potash
7.2 - 8.5	0.21 – 0.79	0.32 – 0.55	15.5 – 32.7	169 – 232

Problem definition: Low yield and quality of Okra (KVK Kaushambi)

Technology Assessed: Assessment of balance dose of fertilizer on the basis of STR

KVK Kaushambi assessed the technology management approach by application of balance nutrient for good quality and high yield production of okra. Application of balance dose of fertilizer on the basis of Soil Testing Report 70:40:40 kg NPK/ha. The variety Kashi Pragati of Okra used under the trial and found that same had enhances the yield of crop.

Technology Assessed (Crop – Okra)	No. of trials	Yield (q/ha)	% increase in yield	Cost of cultivation	Gross income	Net return	B:C ratio
T1 - Farmer Practice Imbalance use of nutrients NPK (100:50:60)	4	35.70		57800	98175	40525	1.60

T2- Use of balance dose of nutrients NPK (70:40:40)		43.50	21.84	51650	119625	67975	2.30

Observations: Result indicated that in treatment plots yield obtained 43.50 q/ ha as comparison farmer practice i.e. 35.70 q/ha of okra. Now result has found that farmers gate more yield 43.50 q/ha. This result show intervention of T2 use of balance dose of nutrients NPK (70:40:40) is successful and more economically beneficial for farmers.

4.4.3 INTEGRATED PEST MANAGEMENT

Problem Identified: Injudicious use of insecticide without consideration of ETL (2 Larvae m^{-2}) (KVK Azamgarh)

Technology Assessed: Assessment of efficiency of IPM module for management of pod borer (Helicoverpa armigera Hub) in chickpea

Result: 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 are 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)	BCR Ratio
T_1: FP: (No any judicial PP measures adopted)	05	5.10	69.7	14.1	-	40560	2.29
T_2: Spraying of NSKE 5% Fb Tricoderma(10g/kg seed) + Pheromone trap		1.18	71.0	19.3	37.0	64250	2.88

Cost of Cultivation Rs./ha $T_1$31350 , T_2- 34180, Sale rate @ Rs. 5100/q

- NSKE 5% (I^{st} spray before flowering and II^{nd} spray after 50% flowering
- Installation of two pheromone trap for monitoring of insect incidence

Problem definition: Low production and poor quality in Rabi Maize

Technology Assessed: Assessment of efficiency of IPM modules in Rabi maize

KVK Bahraich conducted on farm trial to reduce the pest pressure and eco friendly against concern pest management is safer for environment and human health.

Effect IPM technology in Rabi Maize against borer

Technology Option	No.of trials	Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Indiscriminate use of insecticide (chlorphyriphos 20E.C. @ 2000ml/ha) **(Farmers Practice)**	05	49.9	-	64335	1.56
Use of pheromonetrap @ 5 trap/ha with heli lure, use of bio pesticide Nimbicidene at ETL **(Recommended Practice)**		57.0	16.2	77369	1.93

Problem definition: Incidence of Fall Army worm in Maize crop. (KVK Bulandshahar)

Technology Assessed or Refined: Management of fall army worm in Maize.

Maize is an important cereal crop. Different disease and pest affect of this crop. Fall army worm has a emerged as a pest of serious concern due to its nature and quantum of damage to standing crop. KVK, Bulandshahr conducted On Farm Trials for assessment of the management technology. The assessed technology of Cyantraniliprol 19.8% + Thiomethoxam 19.8% @ 32 ml/6kg seed (seed treatment) resulted in significant decrease in crop loss due to FAW infestation.

Table Effect of Cyantraniliprol 19.8% + Thiomethoxam 19.8% @ 32 ml/6kg seed (seed treatment) in the management of Fall Army Worm in Maize Crop.

Technology Option	No.of trials	Incidence of Fall Army Worm (%)	% decrease in Fall Army Worm	Yield (q/ha)	% Increase in yield over farmer's practice	BC Ratio
T_1: Farmers practice- use of Chloropyriphos + cypermethrin @ 1000 ml/ha	05	29.0	-	29.0	-	1.8:1
T_2: Cyantraniliprol 19.8% +Thiomethoxam 19.8% @ 32 ml/6kg seed (seed treatment)		9.0	68.9	46.5	37.63	2.6:1

Problem definition: Low yield of Urd

Technology Assessed: Management of yellow mosaic disease of Urdbeen

Effect of insecticide in yellow mosaic disease in Urdbeen.

Technology Option	No. of trials	Yield (qt/ha)	Increase in yield %	Disease Infestation %	Gross cost (Rs.)	Gross return Rs.	Net Return Rs.	B:C
T_1 – No use of insecticide	03	5.20	-	50	20200	34320	14120	1.7
T_2 – Spray of thiomethozim @ 1 lt./ha spray of 25 day after sowing second spray 45 day after sowing.		7.40	42.31	10	20500	48840	28340	2.38

Rate @ Rs. 6600.00 per qt.

Result: Trail was conducted in 3 farmers field by KVK, Firozabad the result indicates that the use of thiomethozim @ 1lt/ha yield increase 42.31% over T_1 and control yellow mosaic disease in Urdbean. The disease infestation % Minimize in T_2 treatment 10% however the control is more over T_1 (50%).

Problem definition: Low yield of Chick Pea (KVK-I Ghazipur)

Technology Assessed: Pod Borer Management in Chick Pea with application of IPM strategies.

Chick Pea is a major pulse crop of Rabi season. The low yield of chick pea was recorded due to severe infestation of pod borer (*Helicoverpa armigera* Hubner). The cause was identified with concerned village persons during survey and KVK conducted on farm trial to manage pod borer. The different IPM strategies i.e. proper tillage, line sowing and inter cropping with coriander/linseed, HYV RVG-202, seed treatment with Carbendazim @ 2gm/kg of seed for management of collar rot, power plant neem pesticide (Neem pesticide-0.15%) @ 2 ml/liter water at 50% flowering and emamectin benzoate 5% SG @250gm/ha at 50% pod filling stage are being evaluated under on farm trial.

Performance of IPM module in management of Pod borer in Chick Pea

Technology Option	No. of Trials	% of Affected plants/m2	% of damaged pod/plant	Yield (q/ha)	%increase in yield over farmers practice
1	2	3	4	5	6
No spray of insecticide (FP)	04	42	48	10.87	-
Use of IPM strategies		12	14	16.10	48.11

Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Returns (Rs/ha)	B:C Ratio
7	8	9	10
23630	51115	27485	2.16
25390	83320	57930	3.28

4.4.5 INTEGRATED DISEASE MANAGEMENT

Problem definition: False smut disease in paddy

Technology assessed: Assessment of suitable fungicides for management of false smut disease of paddy

Paddy is grown on about 50000 ha area in district Etawah. Paddy crop is affected by several diseases from seedling stage to maturity stage. The false smut is major disease because the fungi affect the crop at flowering and maturity stage and reduce the yield. An on farm trial was conducted to assess new fungicides for management of the disease. Spraying of propiconazole @ 500 ml/ha was found most effective for the management of false smut disease of paddy. It reduced the infected panicle /sqm from 7.50 to 2.50. The yield enhancement was 14.42 % with additional net return of Rs. 12586/ha in over farmer's practice.



Technology Option	No. of trials	Av. Infected panicle /sqm	Disease Intensity	Yield (q/ha)	Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
Farmers Practices	15	7.50	20.25	47.85	38000	92829	54829	2.44
Two Spraying of propiconazole @ 500 ml/ha		3.40	11.50	52.25	38900	101365	62465	2.60
Two spraying Hexaconazole @ 500 ml/ha		2.50	9.90	54.75	38800	106215	67415	2.73

Problem definition: Heavy infection of stem rot and root rot disease in sesame (KVK Banda)

Technology assessed: Integrated Management of stem rot and root rot disease of sesame

Sesame is an important oilseed crop of Bundelkhand region of Banda. However, there is high incidence of stem rot and root rot disease resulting in yield loss. KVK, Banda conducted on-farm trial during Kharif 2022-23 to assess the management measure. The refined technology of summer deep ploughing, seed treatment with Trichoderma viride@4g/kg, soil application of T.viride @2.5kg/ha enriched in 100kg of FYM at sowing, neem cake@250kg/ha at sowing time and foliar spray of copper oxychloride 50% WP@2 g/l water reduced the percentage of disease incidence from 18.2 to 4.2% and yield was increased by 36.8 per cent.

Management of stem rot and root rot disease of sesame

Technology Option	No.of trials	No. of infected plants(%)	Yield (kg/ha)	% Increase in yield over farmer's practice	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	B:C ratio
Seed treatment measure not in practice (Farmers Practice)	12	18.2	3.8	-	8500	30,400	21900	1.57
summer deep ploughing, seed treatment with Trichoderma viride@4g/kg, soil application of T.viride@2.5kg/ha enriched in 100kg of FYM at sowing, neem cake@250kh/ha at sowing time and foliar spray of copper oxychloride 50% WP@2 g/l		4.2	6.2	36.8%	9300	41600	32300	2.47

Problem definition: Low Productivity in Basmati Rice due to heavy infestation of Blast (KVK Bijnor)

Technology Assessed: Evaluation of suitable fungicides for management of blast diseases.

The KVK Bijnor conducted on-farm trial on management of blast diseases through suitable fungicides. The chemical tested were Azoxistrobin 11% + Tebuconazole 18.2% SC and Tricyclazol as check. The application dates of fungicides 15-20 September, 2022 with harvesting 15-20 October, 2022. The results revealed that yield increase of chemical apply paddy ranged between 9-18 percent over farmers practice. The chemical applied field gave highest yield of 45.25 per ha with net return of Rs. 113460.00 and BCR of 2.4. The others technical data as given below:-

Disease incidence in Azoxistrobin 11% + Tebuconazole 18.2% SC treated crops is 0-3% comparison none treated crops 9-18%.

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Disease incidence (%)	Net Return (Rs./ha)	B:C Ratio
T_1- FP (Tricyclazol)	01 (05 farmers field)	40.75	--	9-18	99,235.00	2.12
T_2- Azoxistrobin 11% + Tebuconazole 18.2% SC		45.25	11.4	0-3	1,13,460.00	2.4





Problem definition: Late blight disease of potato.

Technology Assessed: Assessment of new fungicides for late blight disease of potato.

Potato is grown on about 19000 ha area in district Etawah and. The crop is affected with several diseases which reduced the yield of potato crop. An on farm trial was conducted by KVK Etawah to assess new fungicides for management of late blight disease of potato caused by *Phytophthora infestans*. The results revealed that foliar application of Dimethomorph @ 1.00 kg/ ha +Mancozeb @ 2.0 kg/ha reduced the of late blight incidence from 19.85% to 8.57% and also increased the yield by 10.81 % ove farme's practice..

Technology Option	No. of trials	Disease Intensity (%)	Yield (q/ha)	Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
Farmers Practices (Spray of Mancozeb)	15	19.85	278.15	80500	222520	142020	2.76
Spraying of Dimethomorph @ 1.00 kg/ ha +Mancozeb @ 2.0 kg/ha		8.57	308.21	82300	246568	164268	2.99





Problem definition: Heavy Infestation of downey mildew in cucumber caused yield loss of more than 70% (KVK Jhansi)

Technology Assessed: Management of downey mildewdisease of cucumber

Description of details: Now days, cucumber is a major zaid crop (early zaid) in few villages of district Jhansi. A number of farmers are moving from cereals and pulses to cucumber and gaining high yield and income with hybrid cultivars (malni , Seminis). Downey Mildew disease is a major threats in this region caused more than 50 yield losses. Fungicide Metalyxy+Mancozeb @0.2% has property as oomycetes fungicide was evaluated against the downey mildew fungi in the zaid season 2022. The crop was sown on January first week and harvested on last week of April.It was observed that downey mildew disease incidence decreased up to 10% with application of fungicide. However, in farmers practices disease incidence was noticed 76%. The average yield of treatment field was 360 q/ha and it was 22% higher than farmers practices field (282 q/ha). The treatment also has maximum net return (Rs.280000/ha) and4.5 B:C ratio as compared to farmers practices (Rs. 200000).

Effect of fungicide (Metalyxy+Mancozeb @0.2%) on downey mildew of cucumber

Technology Option	No. of trials	Disease incidence	Yield (q/ha)	Yield Increase %	Net Return (Rs./ha)	B:C Ration
T_1: (Farmers practices)	02	76	282	22	200000	3.5
T_2: **Metalyxy+Mancozeb @0.2%)**	05	10	360		280000	4.5

Problem definition: Black scurf disease of potato

Technology Assessed: Assessment of new efficacy fungicides for management of black scurf disease in potato

Potato is a major crop of district Etawah and grown on about 19000 ha area. The crop is affected with several diseases which reduced the yield as well as quality of potato tuber. The black scurf disease has severe which badly affects the quality of tubers. KVK, Etawah conducted on farm trials to assess the new efficacy fungicides against black scurf disease of potato. Seed treatment with Penflufen @ 1.0 l / ha has been found very effective in enhancing yield of potato by 12.58% and additional net returns Rs. 25416 /ha over farmers practice. Infected tubers were reduced from 28.17% to 11.20%. Thifluzamide (Pulsor) @ 1.25 lt per ha seed also increased tuber yield by 8.58 % and reduce the infected tubers from 28.17% to 16.50 %. Based on farmers perception these interventions may be further taken in the district under FLDs.

Technology Option	No. of trials	Germination % at 15 DAS	Infected tubers (%)	Yield (q/ha)	Gross Cost (Rs/ha)	Gross Return (Rs/ha)	Net Return (Rs/ha)	B:C Ratio
Farmers Practices (Carbendazim)	15	19.85	28.17	280.15	80000	224120	144120	2.80
Seed treatment with Thifluzamide @ 1.25 l/ha.		24.85	16.50	304.21	82500	243368	160868	2.94
Seed treatment through Penflufen @ 1.0 ml / ha.		27.65	11.20	315.42	82800	252336	169536	3.05





4.4.4 INTEGRATED CROP MANAGEMENT

Problem definition: Low production of Mango due to heavy infestation of Dieback (KVK Barabanki)

Technology Assessed: To assess the performance of management of Dieback in mango crop

KVK, Haidergarh conducted on-farm trial to Assessment of the performance of management technology against Dieback in mango crop. Spraying of Borax@100gm/plant + copper oxychloride@100gm/plant +copper sulphate @100gm/plant after disease appearance. It reduced the percentage of disease infestation in mango and yield was increased by 33.38 per cent.

Assess the performance of management of Dieback in mango crop

Technology Option	No. of Trials	Disease infestation (%)	Yield (q/ha)	% Increase in yield over farmer's practice	B:C Ratio
(Farmers Practice) No Seed Treatment . Use of non recommended insecticide in high doses.	10	33.17	39.87	--	2.0
(Recommended Practice) Spraying of Borax@100gm/plant + copper oxychloride@100gm/plant +copper sulphate @100gm/plant after disease appearance		7.85	53.18	33.38	2.65

Problem definition: Higher cost and labour intensive cultivation of rice

Technology Assessed: Direct Sowing of Rice by Multi-crop planter

KVK, Bareilly conducted on-farm trial to assess the performance of Direct Seeded Rice to reduce the cost of cultivation of rice. Rice is a major crop of the district having 1.2-1.4 lakh ha area, almost all the area is under transplanted rice which is labour intensive and increases the cost of cultivation. Therefore, direct seeding of rice by Multi Crop Seed drill is done in 2.0 ha area in the fields of 5 farmers and the weeds were controlled by Bispyriback sodium @ 250ml/ha at 20-25 DAS.

Effect of Direct Seeded Rice and Weed management with Bispyribac Sodium

Technology Option	No.of trials	Yield (qt./ha)	Weed Population/sq.m.	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
T-1: Transplanted Rice	5	45.25	9.2	-	47500	1.90
T-2: Direct Seeded Rice by Multi Crop Seeder		43.90	15.4	-2.98	37250	2.51

Economic Details:

Treatments	No. of Replications	Production (q/ha)	Cost of Cultivation (Rs./ha)	Gross Income (Rs.)	Net Income (Rs./ha)	B:C Ratio
Transplanted Rice (Weed control with Butachlor) (Farmers Practice)	5	45.25	48750	90500	41750	1.86
Direct Seeded Rice (Weed control with Bispyribac sodium) (Recommended Practice)		43.90	40200	87800	47600	2.18

Farmers Reaction: Farmers reported that the cost of cultivation of Direct Seeded Rice crop reduced drastically with only 2.98 percent reduction in yield as received from transplanted rice. Weed population was higher in DSR due to poor rainfall from sowing to reproductive stage. Sowing in low lying fields and good rainfall is very important for better results.

Problem definition: Lower income from banana

Technology assessed: Assessment of sustainability of High density planting of banana with double row system

ICAR-IIVR-KVK, Deoria in Uttar Pradesh conducted on-farm trial to assess the effect of high density planting on net return in bananas. The planting of banana as double row planting system of Doubled row planting at 1.5x1.5x

2.0 m spacing (3750 plants/ha) realized a net return of Rs. 7.91 lakh/ha as compared to the recommended practice with net returns of Rs. 6.54 lakh/ha (20.87 % increase in net return per ha).

Performance Banana as double row plating system

Technology Option	No.of trials	Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
Planting of banana at 1.8x1.8 m spacing (3086 plants/ha Farmers Practice)	5	738.6	18.92	654870.00	3.65
Doubled row planting at 1.5x1.5x 2.0 m spacing (3750 plants/ ha Recommended Practice)		878.4		791580.00	4.01

Problem Identified: Low productivity of Mango(KVK Unnao)

Technology Assessed: Effect of balance use of fertilizer in mango

KVK Unnao has started an On Farm Trail to assess the effect of balanced dose of fertilizer in mango at Hansanganj block (6500 ha area).

Technology Option	No. of Trials	Yield Q/ha	Net Return Rs./ha	BCR
T1 - Farmer Practice (Imbalanced use of fertilizer, DAP 2 Kg/Plant)	05	80.5	1,15700	2.5:1
T3- 1st Dose: July to August Month, 50-60 kg FYM+ 1.5 Kg DAP+1 kg Mop+200gm Zinc Sulphate 2nd Dose: October & November, 1.5 Kg DAP+1 kg Mop+200gm Zinc Sulphate		121.5	190,000	3.75:1

Result : Use of two doses of balance fertilizer which improved the productivity of mango by 50.93%. The net return increase up to Rs.1, 90,000/ha as compare to Rs. 1, 15,700 from farmer's practice.

4.4.5 INTEGRATED WEED MANAGEMENT

Problem Identified: Low yield of maize (KVK Azamgarh)

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

Result: Results reveal that sedges population is quit severe at early stage of crop and ignorance about their effective and timely management reduced yield per unit. Application of Halosulfuron Methyl 75%WP at 30 days after sowing showed its efficacy on sedges after one week with special selectivity against *Cyperus spp.* The treatment was found beneficial in terms of yield enhancement up to 36.1 %.

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 phyto effect	No. of cob/ plant	Yield (q/ha)	Yield increase (%)	Net Return (Rs/ha)	BCR
T_1: **FP:** (Occasional manual weeding)	04	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 T_1 – 23750, T_2- 26980, Sale price @ Rs. 1850/q

Problem definition: Heavy infestation of weed in upland Rice (KVK Banda)

Technology Assessed: Chemical Weed control in Paddy

Rice is the largest grown crop during Kharif 2022-23season in district Banda. In most of the areas rice crop is transplanted in late July after inception of Mansoon. Rice crop faces weed infestation with broad and narrow leaves weeds mainly of *Echinochloa crusgaii E., Colonum, Ciprus Diformis, Ciria, Alternenthera* under upland condition. A chemical weed management method was evaluated by KVK, Banda at five farmers field's of four villages. A popular herbicide combination namely, Bispyriback sodium 15 SL (Nominigold) @ 200ml/ha was tested against the farmer practice (one hand weeding) during Kharif 2022-23. The chemical weedicide increases 14.53% yield in Pusa Basmati 1121 variety of paddy. Weed management by Bispyriback sodium 15 SL (Nominigold) resulted maximum yield (42.1 q/ha) while the maximum yield by farmers practice was recorded 37.0 q/ha). This treatment has also maximum net return (Rs. 102789 /ha) with 3.27 B:C ratio over farmers practice.

Effect of Chlorimuron+Metsulfuron methyl @ 20g/ha on weed control and yield Wheat

Technology Option	No.of trials	Grain Yield (qt./ha)	Increase in yield (%)	Net Return (Rs./ha)	B:C Ratio
(Farmers Practice) *One Hand Weeding*	*04*	34.72	-	85364	2.98
Bispyriback sodium 15 SL (Nominigold) @200 ml/ha		39.97	15.12	102789	3.27

Sale Price- Rs. 3700/q *Variety- Pusa Basmati 1121*

Problem definition: Weed management on gram yield (KVK Mau)

Technology assessed or refined (as the case may be): Weed control measures on chickpea yield.

KVK Mau took up on-farm trial on weed management in chick pea. The results indicated that the use of Quizolofof Ethyle 80 e.c. increase in yield over farmer practice.

Effect of Alachlor and Oxyflurofen on weed control and yield at cabbage

Technology Option	No. of trials	Weed infestation (m^2)	Yield (qt./ha)	Increase in yield (%)	Cost of cultivation (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs./ha)	B:C Ratio
No use of herbicide (Farmers Practice)	5	35	17.0	-	25800	125756	99956	4.87
Pendamethelene 1lt ai /ha (Recommended) Quizolofof Ethyle 100 gm/ha (Recommended)		6	21.4	25.88	27865	147832	119967	5.30





4.4.6 RESOURCE CONSERVATION TECHNOLOGY (RCT)

Problem definition: High cost of transplanting of paddy, limted water vailability, lesser availability of labour (KVK Amethi)

Technology Assessed: Performance Assessment of Super seeder for direct sowing of paddy

KVK Amethi is conducting an OFT to assess Performance of Super seeder for direct sowing of paddy. Under this OFT, paddy seed is directly sown by using Super seeder machine. In farmer practice seed is directly sowen in field

by broadcast method. Initial performance showing better result in tested technology. Seed rate is reduced up to 50 % in the super seeder technology.

Performance of Super seeder for direct sowing of paddy

Technology Option	No. of trials	Yield (qt./ha)	Increase in yield (%)	Cost of cultivation (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs./ha)	B:C Ratio
T_1: Farmer practice (Seed directly sown by broadcast method)	3	27.75	-	21200	56610	35410	2.67
T_1: Seed directly sown by Super seeder Machine.		36.20	30.45	24500	73848	49348	3.01

Paddy Price @ 2040/q

Problem identified : Burning of crop residue of paddy after combine harvesting for timely sowing of wheat (KVK-1 Gonda)

Technology Assessed: Assessment of efficacy of super seeder

KVK, Gonda 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	34.58	-	Seed rate(kg./ha.) Germination(days) No. of tiller (no/hill.)	125 8-9 20-25	32865	1.91
Recommended practice- Sowing of wheat with super seeder machine without burning of paddy crop residue..		38.25	10.61	Seed rate(kg./ha.) Germination(days) No. of tiller (no/hill.)	100 6-7 25-30	41750.0	2.25

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.

Problem diagnosed : Burning of crop residues (Paddy Straw)-(KVK Meerut)

Technology Assessed: Assessment of effect of **c**rop residue of paddy incorporated in the field of wheat.

To assess the performance of sowing of wheat after incorporation of crop residue by mulcher. On Farm Trial was conducted with 06 treatments under field condition. Data was collected 9.6 % more yields was obtained in corporation of paddy straw in the field as compare to burning of paddy straw .

Sowing of wheat after incorporation of crop residue

Technology Option	No. of trials	Yield (q/ha)	Increase in yield (%)	Cost of cultivation (Rs)	Gross (Rs)	Net (Rs)	BC (Rs)
T_1: Farmer practice – Sowing of without incorporation of crop residue	06	47.8	-	24900	92015	67115	1:3.70
T_2: Sowing of wheat after incorporation of crop residue by mulcher		52.4	9.6	26400	100870	74470	1:3.82

Sale price of Wheat: Rs 1925/qt.

Feed Back: In treatment no, T2 recorded maximum yield as 52.4 q/ha which is 9.6 % more than non adoption of the practices. Resulting the techniques obtained net profit of Rs. 74470 as compared to Rs. 67115 in farmers practice, B.C ration is also more as 3.82 as compared to 3.70. Farmers are happy to incorporation of crop residue. They are ready to repeat this process in next year also.



Wheat crop after crop residue management



In-situ management of Paddy straw

4.4.7 LIVESTOCK

Problem Definition:- Goats are suffering from malnutrition due to imbalance feeding resulting poor growth and conception rate.

Technology Assessed- Assessment of performance of balance concentrate feed supplements in goats.

Technology option	Number of Trials	No. of animal	Initial Body weight (kg)	Final Body weight (kg)	Present increase in Body weight	Conceive (%)	Conceive (%) increase
T1 Grazing +occasionally feeding of 100 gm chuni & bran. (F.P.)	05	10	10.85	13.56	19.99	40	**50**
T2 300 gm concentrate mixture (mustard cake-30%, Dalchuni-14%Rice Polish-25%,wheat bran-25%, Mineral Mixture-2%, common salt-2% and chalk-2%)+ Grazing prepared through locally available material (R.P.)			10.60	16.42	35.44	80	

Result- The result indicated that goats are fed 300gm /day /goat concentrate mixture . The final body weight is higher in T2 (16.42 kg) with 35.44% increase in body weight as compair to farmer practice (13.56 kg & 19.99%). Concieve percent increased in T2 (50%) due to feeding of mineral mixture it provide calsium & phosphorus in maxium proportion. Farmers are much convinced in with T2 (300gm concentrate mixture /day /goat) due to increased in body wieght, concieve percent and improvement in health.

Problem definition: Low milk yield and fat content in lactating cattle's

Technology assessed: Feed Management for lactating cattle's

KVK, Unnao (UP), conducted a trial to find out suitable nutrient management to increase the milk production and composition quality of cattles. The conventional practices used by the farmers for improving the feed management and milk production are not suitable for lactating cattles; therefore a trial of Bypass fat supplement were introduced to increase the feed milk production and composition quality of milk.

Effect of bypass fat supplement in lactating cattle's

Technology Option	No. of Trial	No. of Animal treated	Milk Yield (Kg/day)	Milk composition			B:C ratio
				Fat %	SNF	Total Solid	
T_1 - Farmer Practice	20	10	4.25	3.02	8.56	11.58	1.55:1
T_2 - Bypass fat (20g /Litre per day for 60 days)		10	6.58	4.40	8.72	13.12	

Result: The result revealed that the milk yield, fat percent, SNF and total solid were higher in treated animals as compare to farmers' practices. Supplementation of Bypass fat was found superior as compare to farmers' practices as well as more adoptable to farmers

4.4.8 DRUDGERY REDUCTION

Problem definition: Low work efficiency and high drudgery of farm women during weeding in onion (KVK Baghpat)

Technology Assessed: Assessment of efficacy of Twin wheel hoe.

Many agriculture operations are performed by women which involve a lot of physical strain. Weeding is one of them.Traditionaly khurpi is being used in Baghpat for interculture operation. In order to enhance the efficiency and reducing drudgery, Krishi Vigyan Kendra, Baghpat conducted trial by introducing twin wheel hoe as T2 (technology option 2) for weeding of onion against traditional khurpi as farmer practice T1 (technology option 1) at three locations. Results revealed that the activity became less drudgery prone as the perceived exertion has been reduced from severe to mild when work is performed by T2 and The output is increased by 90.08%.

Result:

Technology	Parameter	Data	Result
T_1:Use of khurpi for weeding onion	Output m^{*-2}/hr Average working heart rate (b/min) EER (KJ /min) Rate of perceived exertion (Pain in legs and upper arms) (on 5 point scale)	60.5 105.50 7.97 Very severe pain .9 Due to adoption of aquating posture for many hours.)	The output is increased by 90.08 % when the work is performed by T2(twin wheel hoe) and the activity became less drudgery prone as the perceived exertion has been reduced from very severe (as in case of T1) to mild (as in case of T2.Thus drudgery is minimized.Women farmer showed their interest and willingness for adopting T2.
T_2: Use of twin wheel hoe for weeding onion	Output m*2/hr Average working heart rate (b/min) EER (b/m) Rate of perceived exertion (on 5 point scale) Pain in legs and upper arms) (on 5 point scale)	115 112 9.08 mild	





Problem definition: High drudgery during farm operations

Technology Assessed: Assessment of efficacy of weeding tool

An on farm trial was conducted by KVK, Mahoba to assess the performance of weeding tool for drudgery reduction among farm women of district. Bicycle weeder reduced the energy expenditure from 10.36 to 6.86 kj/min. and heart rate upto12 beats/min.Average of percent increase in efficiency was 76.96 and Average of percent reduction in drudgery was 33.78 with use of bicycle weeder.

Effect of weeding tool (bicycle weeder) on body drudgery reduction among farm women

Technology Option	No.of trials	Average of output (m^2/hr)	Average of % increase in efficiency	Average WHR (beats/min.)	Est. energy expenditure (kj/min.)	Average of % reduction in drudgery	Cardiac cost of work
T_1 – Farmers practice (manual weeding by use of khurpi)	7	36	-	120.5	10.36	-	42.5
T_2 – Bicycle weeder		156.25	76.96	98.5	6.86	33.78	20.5

4.4.9 FARM MACHINERY

Problem definition: Tedious and high cost of labour in raising paddy (Arize-6444) nursery and then manually transplanting at the same time excessive water requirement.

Technology Assessed: Krishi Vigyan Kendra, Allahabad conducted OFT to access the effect of directly sowing pre germinated paddy seed by manually drawn drum seeder in puddled field without free water surface. Effect of sowing paddy with drum seeder using herbicide Pyrazosulfuron ethyl10 % (Saathi), 80g/acre was compared with the conventional method of raising nursery and transplanting in puddled field with greater depth of water. Major aspect under taken was labour saving as is reflected on the overall cost of cultivation. Labour saved was observed to be upto 95%

Comparison and effect of sowing by drum seeder over manual transplanting of paddy

Technology Options	No. of trials	Seed rate (kg/ha)	Field capacity (ha/hr)	Labour, man hrs/ha (no.)	Cost of cultivation (Rs)	Yield (t/ha)	Increase in yield %	Net return (Rs/ha)	B:C Ratio	Level of drudgery
Manual Transplanting T1	3	16	0.003	320(40)	30560	8.0	-	79940	3.61	High
Sowing by manually drawn drum seeder T2		12	0.0625	16(2)	21300	8.3	4.88	90700	5.2	Low

4.4.10 NUTRITION MANAGEMENT/HOUSEHOLD FOOD SECURITY

Problem: Deficiency of Haemoglobin in adolescent girls.

Technology accessed: Improvement of Haemoglobin level through value added jaggery products .

Use of fortified jaggery product for improvement of haemoglobin level of adolescent girl.

No. of adolescent girl : 15 No. of families: 5

Technology assessed/Refined	Result
T_1 – Traditional practice Not extra consumption of iron in daily diet	Poor haemoglobin level
T_2- Ground nut chikki (30 gram ground nut + 70 gram jaggery)	Better haemoglobin level of adolescent girls
T_3- Mixed Atta Laddo (30 gram wheat floor + 20 gram bazara + 20 gram aonla flakes + 30 gram jiggery)	Improvement of haemoglobin level

Nutritive value of Prepared recipe (By calculation method C-Gopalan)

Recipe(Per 100 gm)	Protein(gm)	Energy(kcal)	Iron(mg)
Groundnut Chikki	8.14	368	2.96
Mixed atta laddo	6.22	296	2.80

Result: In respect to sensory evaluation (color, texture, aroma, appearance, palatability) fortification of groundnut chikki (30 gram ground nut + 70 gram jiggery) was found better than T_3- Mixed Atta Laddo (30 gram wheat floor + 20 gram bazara + 20 gram aonla flakes + 30 gram jiggery).In respect to increase haemoglobin level recorded after 90 days and 180 days of consumption of Ground nut chikki (30 gram ground nut + 70 gram jiggery), average increase in haemoglobin level of adolescent girls observed 1.5% to 2 %..

Acceptability: Treatment T_2 was found more acceptable than T_3.

Adolescent girl reaction: Treatment T_3 was not accepted by the Adolescent girls because of change in color, taste and appearance due to fortification by bajara and aonla flacks.

Problem definition: Nutrient inadequacy (KVK Meerut)

Technology Assessed: Nutritional Management in Badi prepared from different pulses and vegetable and spices. .

Preparation of Badi was 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 of different pulses and vegetable and spices.

Technology Option	No. of trials	Yield (kg)	Increase n 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 green gram	10	1.5	--	Nutritive value Self life Sale opportunity	Rich in protein 25.43 gm & Rich in vitamin B Complex, K, minerals Better keeping quality Income Generating	110	225.0	115.0	1:2.0
T_2- Preparation of badi from pulses-greengGram urd and Petha + spices		1.5	-			135.0	375.0	240.0	1:2.7

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







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Chapter-5

EXTENSION PROGRAMMES

Extension programs are one of the important mandated activities are carried out by the KVKs of Uttar Pradesh. In all 50098 extension activities with 16.68 lakh beneficiaries, 25767 mass communication extension activities, 814872 mobile advisories though text and voice for 46.72 lakh farmers, 24560 soil samples covering 40064 farmers, 8620 technology week celebrations with 3.26 lakh beneficiaries, 17 trainings under rain water harvesting & micro irrigation system with 3268 beneficiaries have been reported. Total 58 SACs have been conducted by 55 KVKs, 445 activities conducted under technology backstopping by DEs and 15688 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	50098	1667789
2	Other extension programs(mass communication)	25767	mass
3	Mobile advisories	814872	4671549
4	Soil samples	24560	40064
5	Technology week celebrations	8620	326491
6	Trainings and Demonstrations under Rain Water Harvesting & Micro Irrigation System	17	3268
	Total	**923934**	**6709161**

5.1 Extension Activities

An agricultural extension service provides technical aid to farmers on any agricultural issues. These activities are supposed to provide them with the essential inputs and services that support and increase their agricultural production. New ideas and techniques developed by the agricultural scientific research centres are dispersed among the farmers by the agricultural extension activities. A large number of extension activities (50098) were organized for 1667789 farmers and extension personnel by KVKs of Uttar Pradesh. The major activities like advisory service (19044), diagnostic visits (3985), field days (899), group discussions (917), kisan gosthies (1398) film shows (724), self help groups (358), kisan mela (450), exhibitions (313), scientist visit (7392), plant/animal health camps (147), farm science clubs (80), ex-trainees meet (2210), farmers' seminars (176), method demonstrations (572), celebrations of important days (449), special days celebration (427), exposure visits (1713) with the participation of 1624979 farmers and 42810 extension personnel were benefitted. (Table-5.2)

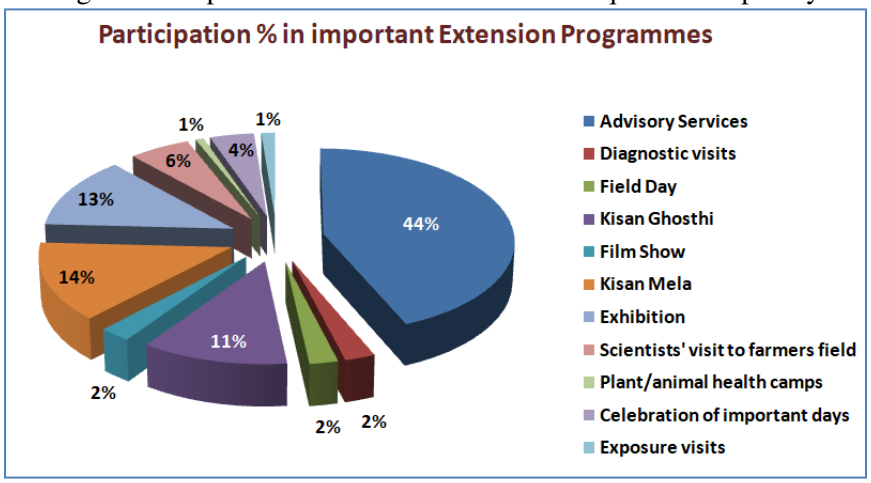


Table-5.2: Extension activities conducted in KVKs of Uttar Pradesh

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	Total	No of KVKs
Advisory Services	19044	618221	7005	625226	88
Diagnostic visits	3985	32137	1846	33983	88
Field Day	899	30648	1203	31851	88
Group discussions	917	19814	990	20804	84
Kisan Gosthi	1398	156866	6435	163301	87
Film Show	724	34388	1154	35542	64
Self Help Groups	358	16815	638	17453	65
Kisan Mela	450	190739	5616	196355	91
Exhibition	313	175282	3822	179104	67
Scientists' visit to farmers field	7392	77709	3145	80854	88
Plant/animal health camps	147	9961	868	10829	54
Farm Science Club	80	3053	67	3120	39
Ex-trainees Sammelan	2210	4849	182	5031	51
Farmers' seminar/workshop	176	16600	761	17361	50
Method Demonstrations	572	12302	583	12885	71
Celebration of important days	549	56276	2012	58288	87
Special day celebration	427	31281	2110	33391	88
Exposure visits	1713	17139	638	17777	76
Others	8744	120899	3735	124634	71
Total	**50098**	**1624979**	**42810**	**1667789**	**-**

5.2 Other Extension activities

To a large extent, mass media serves as a veritable instrument for information dissemination in agriculture. Agricultural extension/information delivery is precisely a process of communication of improved skills, practices, innovations, technologies and knowledge to farmers. For the purpose, KVKs of Uttar Pradesh has organized other extension activities (25767) also. The major activities like electronic media (199), extension literature (13175), news paper coverage (7095), popular articles (774), radio talks (186), and TV talks (186), Animal health camps (3695) were performed.

S. No.	Particulars	Number	No. of KVKs
1	Electronic Media (CD./DVD)	199	46
2	Extension Literature	13175	85
3	News paper coverage	7095	88
4	Popular articles	774	84
5	Radio Talks	271	59
6	TV Talks	186	50
7	Animal health amps (No. of animals treated)	3695	60
8	Others	372	47
	Total	**25767**	**-**

5.3 Kisan Mobile Advisory Services

Kisan Mobile Advisory Services (KMAS) are delivering information for the farming community of the state by harnessing the information and communication technology based mobile networks. It is one

such tool where the information is reach at a stroke of a mouse click, and enables the farmer to have information access and face the challenges ahead of them. The aim is to provide timely quality need based information on various topics and context of agriculture and allied sector in the right quantity and right form thus empowering the farmers with information and improving their decision making ability. The delivered information is location-specific and crop or enterprise specific. Information is delivered to the registered farmers of the state through mobile Short Message Services (SMS). During the period under report, KMAS were given by KVKs with 54080 text messages, 735942 voice messages and 24850 text including voice to 4671549 farmers. (Table-5.3)

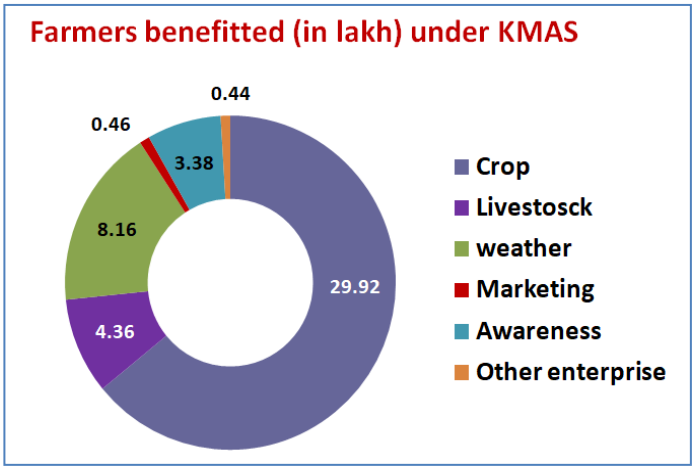


Table-5.3: Physical achievement of Kisan Mobile Advisory Services provided to farmers

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	36164	134673	11513	2991782
Livestosck	3468	134369	1750	436427
weather	6612	132753	5535	816006
Marketing	1326	125561	1132	45610
Awareness	5005	134495	4057	337729
Other enterprise	1505	74091	863	43995
Total	**54080**	**735942**	**24850**	**4671549**

5.4 Other Extension Programmes

5.4.1 Soil, water and plant samples analysis/SHC

Soil analysis gives valuable information, essential for soil quality improvement. By tracking the exact amount of soil nutrients, a farmer can easily adjust fertilization in accordance with soil and crop requirements. In all, 23368 samples of soils, water (410), plant/manures (782) were analyzed by 52 KVKs. Those samples were collected from 1753 villages and 40064 farmers' fields in Uttar Pradesh.

Soil Health Card (SHC) is used to assess the current status of soil health and when used over time, to determine changes in soil health that are affected by land management. A SHC displays soil health indicators and associated descriptive terms. A total of 17009 Soil Health Cards (SHC) has been issued by the KVKs to farmers for the purpose.

5.4.2 Scientific Advisory Committee Meetings (SACs)

Total 58 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, 8620 activities were organized by KVKs by benefiting 326491 farmers. The main activities involved in this program are distribution seeds, bio-fertilizers and bio-products to farmers and other activities like gosthies, 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, 17 trainings and 324 demonstrations were conducted and 3268 farmers and 86 officials visited the system also 2530 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 (52), field days (62), workshop/seminar (16), technology week (9) and training programmes (79)
(ii) Overseeing of KVK activities: OFT (71), FLD (84), others (26)
(iii) Technology product provided to 88 KVKs that includes seeds, planting materials, bio products, poultry breed etc.
(iv) Updating Technology inventory : 46

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 achievements are as follows –

(i) Total 6780 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 7567 technology information provided by Kisan call centres, video shows, etc

(iii) Total 18284 literatures are distributed

(iv) Technology products like seed (1724.94 q) provided to farming community

(v) Technology services like soil & water testing (652), plant diagnostics (689), services to line departments (2058) also provided to farmers and others.

EXTENSION ACTIVITIES



Celebration of Rashtriya Poshan Day : KVK Agra



Kisan Mela: KVK-I Bahraich



Special Day celebration: KVK Bareilly



Yoga Day celebration: KVK Bareilly



Drone demonstration: KVK Bareilly



Kisan Mela: KVK Basti

EXTENSION ACTIVITIES



Celebrating soil health day: KVK Etah



Celebrating Her Ghar Tiranga: KVK Lucknow



Kisan Mela at KVK Mahoba



Distribution of SHC: KVK Pratapgarh



Mahila Kisan Gosthie: KVK Banda



Celebrating International Women Day: KVK Bullandshahar

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 seeds/planting materials. Enterprise wise total production of seed (20613.90 q), planting material (35.55 lakh), bio-product (2531.34 q) and livestock strain (55.77 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 Rs	Procurred by the farmers (No.)
Seed Production (q)	20613.90	404.30	16561
Planting material production (Lakh)	35.55	56.75	34553
Bio-product production (q)	2531.34	29.08	3887
Livestock strain (Lakh)	55.77	38.11	1432

6.1 SEED PRODUCTION

Seed production is one of the important activity of KVKs. Any plant part used for raising the crop is seed. Seed include true seed seedling cutting, rhizome, grafts, roots etc used for Propagation. Seed is crucial and basic input to increase crop yields per unit area. Availability of quality seeds of improved cultivars is considered crucial for realizing productivity and adoption of cultivars in different agro-climatic conditions. The quality of seed alone is known to account for at least 10-15% increase in the productivity. However, lack of quality seed continues to be one of the greatest impediments to bridging the vast yield gap. During the year 2022, KVKs of Uttar Pradesh produced 20613.90 q seed of cereals (16673.84 q), pulses (1829.79 q), oilseeds (1144.22 q), commercial crops (532.90 q), fodder (319.43 q), vegetables (57.72 q) and spices (56.00 q).

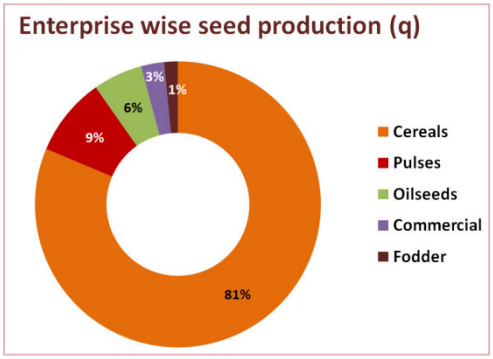


Table-6.2: Enterprise wise physical achievement of seed production (U.P.)

Enterprise	Quantity (q)	Value (Rs. in lakh)	Procured by farmers (No.)	No. of Villages covered	No. of KVKs
Cereals	16673.84	289.76	9215	811	83
Pulses	1829.79	47.18	2265	360	46
Oilseeds	1144.22	45.54	3965	451	39
Cash crops	532.90	16.62	157	21	4
Fodder	319.43	1.41	191	52	6
Vegetables	57.72	1.891	445	27	11
Spices	56.00	1.90	323	63	10
Total	**20613.90**	**404.30**	**16561**	**1785**	**-**

6.1.1 Cereals

The KVKs produced 16673.84 q of seeds of cereals as per details given in Table 6.3. The seed of important cereal crops produced included paddy (6904.93 q), wheat (11551.72 q), jower (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, 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.

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 (RVG-202, RVG-203, Ujjwal, 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, HUL-57, PL 406, PL-08, , Pusa Masoor Ageti); urd bean (Shekhar-2 & 3, IPU 2-43, PU-40) and mungbean (Virat, IPM 2-3, IPM 2-14, HUM-16, PU 36).

6.1.3 Oilseeds

The KVKs of the zone produced seed 1693.47 quintals of oilseeds. The important oilseed crops like Mustard (988.49), Seasum (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, PM 30, Pusa Vijay, CS 56, Bayer Mustard 5210, RH 406, NRCHB-101, YSH-0401, PYS-1 etc; 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 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 Cash crops

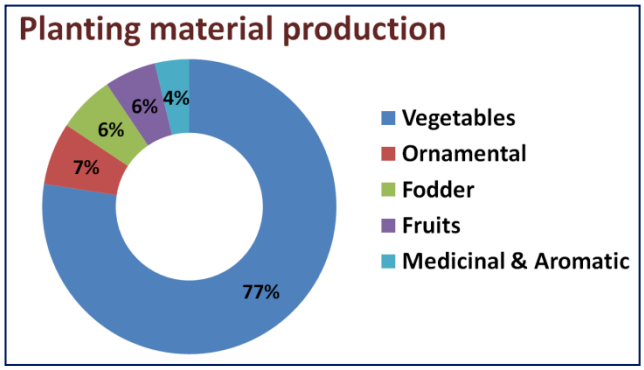
The seed production of potato (10 q) and onion bulb (5.40 q) was recorded. The important varieties i.e. Kufari Bahar, Kufri Sutlaj, K. Sinduri, Kashi Kanchan, Kufri Chipsona-3, Kufrikhyati, Chipsona-1 of potato selected for seed production.

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

Enterprise	Name of crop	Quantity (q)	Value (Rs)	Procured by farmers (No.)	No. of Villages Covered	No of KVKs
Cereals	Wheat	9019.82	193.02	4949	476	40
	Paddy	5659.605	89.07	4052	288	31
	Maize	72.36	0.22	28	0	2
	Jower	1829.99	5.90	30	0	1
	Bajra	4.81	0.11	39	3	1
	Barley	37.86	1.23	97	33	1
	Mandua	20.65	0.07	18	11	3
	Barnyard millet	16.00	-	-	-	2
	Finger Millet	12.74	0.13	2	-	2
	Total	**16673.835**	**28976308.91**	**9215**	**811**	**83**
Oilseeds	Mustard	848.59	34.40	3464	391	26
	Toria	8.70	0.59	312	27	3
	Linseed	209.97	4.80	68	9	3
	Seasum	21.48	0.74	50	4	3
	Groundnut	54.20	4.97	55	15	3
	Soybean	1.28	0.037	16	5	1
	Total	**1144.22**	**45.54**	**3965**	**451**	**39**
Pulses	Pigeon pea	235.51	12.67	1117	115	12
	Lentil	205.87	8.43	285	46	8
	Moongbean	198.20	0.75	56	23	3
	Field pea	859.01	11.66	457	91	9
	Chick pea	191.65	4.18	156	59	8
	Cowpea	3.00	0.34	-	-	1
	Urdbean	118.60	6.64	84	18	3
	Rajmash	0.25	-	25	-	1
	Other	17.70	2.52	85	8	1
	Total	**1829.79**	**47.18**	**2265**	**360**	**46**
Vegetables	Vegetable Pea	2.21	0.33	26	6	2
	Okra	7.61	0.27	177	9	2
	Suran	18.89	0.52	90	12	2
	French bean	3.00	0.34	0	0	1
	Radish	0.10	0.001	0	0	1
	Onion	6.83	0.10	35	0	3
	Other	19.08	0.33	117	0	0
	Total	**57.72**	**1.891**	**445**	**27**	**11**
Spices	Turmeric	41.00	0.90	119	37	5
	Coriander	1.37	0.11	45	5	2
	Garlic	3.80	0.17	15	-	1
	Fenugreek	6.823	0.42	86	21	2
	Other	3.00	0.30	58	-	-
	Total	**55.99**	**1.90**	**323**	**63**	**10**
Fodder/	Jower	1.50	0.02	10	3	-

Fibre crops						
	Berseem	251.66	0.13	25	12	1
	Sudan	35.25	0.26	35	25	1
	Dhaincha	26.22	0.86	90	10	3
	Other	4.80	0.15	31	2	1
	Total	**319.43**	**1.41**	**191**	**52**	**6**
Commercial	Potato	16.90	0.24	34	11	1
crops	Sugarcane	500.00	15.00	-	-	-
	Onion bulb	6.00	0.18	123	10	2
	Other	10.00	1.20	-	-	1
	Total	**532.90**	**16.62**	**157**	**21**	**4**
	Grand Total	**21833.96**	**404.68**	**16613**	**1785**	**-**

6.2 PLANTING MATERIAL PRODUCTION



Quality Planting Material (QPM) is an essential input in agriculture and forestry for maximizing revenues, improving adaptability to adverse environmental conditions, and meeting quality raw material requirements of markets. Also availability of planting material of good quality is one of the most important elements of successful horticultural production. KVKs of Uttar Pradesh produced the planting material/sapling such as vegetables, fruits, ornamentals, forestry, medicinal & fodder plants etc. During the year 2022 KVKs produced 35.55 lakh planting materials including vegetable seedlings (27.32 lakh), fruit saplings (19.96 lakh), ornamental (2.41 lakh), fodder (2.20 lakh), medicinal and aromatic (1.33 lakh), forestry (0.20 lakh) and paddy seedlings (0.10 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)	Procured by farmers (No.)	No. of villages covered	No. of KVKs
Vegetables	27.32	16.83	20871	1407	89
Ornamental	2.41	1.10	841	249	10
Fodder	2.20	3.27	2287	49	13
Fruits	2.00	33.18	8911	1780	47
Medicinal & Aromatic	1.33	0.65	244	12	5
Forestry/plantation	0.20	1.52	1365	136	5
Cereals (Paddy seedlings)	0.09	0.20	34	12	0
Total	**35.55**	**56.75**	**34553**	**3645**	**-**

6.2.1 Vegetables

KVKs produced large number of vegetable seedlings (27.32 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, NHCB-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 2.00 lakh produced by the KVKs of Uttar Prades. 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 (2.41 lakh), medicinal and aromatic (1.33 lakh), forestry plants (0.20 lakh) and fodder plants (2.20 lakh). Forestry saplings included Shisham (Deshi), teak (local), poplar (S7-Series pp-5, ph-1, ph-2, G-48, Bareilly clones, G-48, L-Series), neem (Deshi), eucalyptus (local), Cajurina, etc. Ornamental plants such as rose (Grief template), marigold (African Mariuld, Pusa Narangi, Pusa Basanti, Pusa Narangi,), rajnigandha, calendula, crotan, 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 in lakh Rs	Procured by farmers (No.)	No of Village Covered	No of KVKs
Vegetables	Brinjal	277001	1.53	3657	169	29
	Chilli	311774	1.93	2548	188	27
	Tomato	438699	2.49	4123	233	33
	Cabbage	84476	0.56	1185	105	16
	Cauliflower	181808	1.26	1711	101	26
	Broccoli	62470	0.72	699	52	11
	Capsicum	29694	0.33	1354	40	8
	Onion	1026458	2.37	928	200	24
	Cucumber	43203	0.80	1076	41	3
	Bottle gourd	38180	0.87	949	44	7
	Bitter gourd	22873	0.38	395	36	5
	Sponge gourd	11352	0.20	469	15	7
	Pumpkin	16249	1.90	921	67	8
	Knolkhole	3651	0.05	219	19	2
	Summer Squash	157	0.10	59	0	1
	Marrow	6000	0.18	0	0	0

	Mushroom	104452	0.45	102	18	3
	Others	73919	0.71	476	79	6
	Total	**2732417**	**16.83**	**20871**	**1407**	**216**
Fruits	Aonla	17350	1.03	368	31	6
	Litchi	5988	0.59	213	27	1
	Mango	77547	16.28	1615	208	7
	Papaya	34459	2.27	2022	233	11
	Guava	19736	7.24	2403	237	5
	Jack fruit	1405	0.11	125	452	2
	Beal	10876	3.18	105	50	3
	Citrus	4863	0.01	103	15	2
	Lemon	3634	0.66	613	69	2
	Mausammi	152	0.08	0	0	0
	Karonda	11725	0.06	42	8	1
	Pomegranate	1036	0.56	13	9	1
	Custard apple	1527	0.32	295	25	1
	Apple	1035	0.16	0	0	0
	Ber	500	0.00	20	0	0
	Jamun	1155	0.05	99	341	1
	Others	6640	0.58	875	75	4
	Total	**199628**	**33.18**	**8911**	**1780**	**47**
Ornamental	Marigold	191944	0.45	332	49	2
	Rajnigandha	50	0.00	12	9	0
	Chrysanthmum	342	0.00	11	4	0
	Rose	2431	0.30	196	92	2
	Gudhal	237	0.04	52	22	1
	Crotan	0	0.00	0	0	0
	Calandula	3077	0.03	12	2	0
	Pendula	15	0.01	0	0	0
	Baugain villia	109	0.02	7	4	0
	Durenta Golden	680	0.07	9	3	0
	Gladiolus	94	0.02	8	4	0
	Harshingar	7	0.00	0	0	0
	Glardia	4000	0.00	10	0	0
	Poppy	2002	0.00	12	0	0
	Other ornamental	845	0.12	106	60	1
	Others	35095	0.04	74	0	4
	Total	**240928**	**1.10**	**841**	**249**	**10**
Medicinal & Aromatic	Lemon Grass	213	0.06	8	0	0
	Aswagandha	0	0.00	0	0	0
	Satawar	25	0.00	4	0	0
	Turmeric	765	0.39	40	5	1
	Others	132414	0.20	192	7	4
	Total	**133417**	**0.65**	**244**	**12**	**5**
Forestry/	Arjun	200	0.03	25	4	0

plantation	Mahua	65	0.01	4	2	0
	Neem	5982	0.38	750	97	1
	Teak	6508	0.20	70	4	1
	Saguan	2105	0.15	10	5	2
	Seasum	80	0.02	19	5	0
	Other forestry	4200	0.73	487	19	1
	Total	**19140**	**1.52**	**1365**	**136**	**5**
Fodder	Napier	209634	2.69	2136	44	13
	Para	2550	0.05	4	0	0
	Others	7750	0.53	147	5	0
	Total	**219934**	**3.27**	**2287**	**49**	**13**
Cereals	Paddy seedling	9350	0.20	34	12	0
	Total	**9350**	**0.20**	**34**	**12**	**0**
	Grand Total	**3554815**	**56.72**	**34553**	**3645**	**-**

6.4 PRODUCTION OF BIO-PRODUCT

The KVKs of Uttar Pradesh produced 2531.34 quintal of bio-products which include vermi compost (1481.09 q) and NADEP compost (341.05 q). Besides, KVKs also produced 30.00 q bio pesticides, 5.55 q bio-fungicide and 47.37 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 in lakh	Procured by farmers (No.)	No of Villages Covered	No of KVKs
Bio-fertilizer	Vermicompost	1481.09	16.32	2027	110	19
	NADEP compost	341.05	0.92	50	32	4
	Rhizobium	0.05	0.0025	4	0	0
	P.S.B. Culture	6.12	0.028	10	5	2
	FYM	233.30	0.57	70	14	1
	Other	386.82	3.75	251	39	9
	Total	**2448.42**	**21.58**	**2412**	**200**	**35**
Bio-pesticide	Trichoderma Viridi	15.50	2.31	26	3	1
	Beauveria bassiana	1.00	0.003	0	0	1
	Metarrhizium anisoplae	5.00	0.03	10	5	1
	Botanicals	6.50	0.07	329	13	0
	Other	2.00	0	12	2	3
	Total	**30.00**	**2.41**	**377**	**23**	**6**
Bio-fungicide	Trichoderma harzianum	5.55	0.65	27	0	2
	Total	**5.55**	**0.65**	**27**	**0**	**2**
Other bio-product	Bio Agents	0.73	0.22	142	0	1
	Honey	5.52	1.13	385	0	3
	Lemon pickle	0.20	0.02	0	0	1
	Vermiculture	1.32	0.18	184	12	1
	Worms	1.58	0.52	76	9	4
	Verms	38.03	2.4	284	17	2
	Total	**47.37**	**4.44**	**1071**	**38**	**12**
	Grand Total	**2531.34**	**29.08**	**3887**	**261**	**55**

6.5 LIVESTOCK & FINGERLING PRODUCTION

KVKs of Uttar Pradesh produced 55.77 lakh livestock strains including 872 dairy animals including cows, buffaloes, calves, goat etc by 11 KVKs; poultry (15515) including broilers, layers, duals, ducks etc by 13 KVKs; piglets (93) and fisheries (55.61 lakh) by 6 and 5 KVKs respectively. The amount of Rs 38.11 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 in lakh Rs	Procured by farmers (No.)	No of KVKs
Dairy animals	Cows	36	4.93	4	4
	Buffaloes	5	0.70	0	0
	Calves	19	0.85	0	0
	Goat	338	6.79	56	6
	Others	474	1.40	0	1
	Total	**872**	**14.67**	**56**	**11**
Poultry	Broilers	3909	7.22	543	2
	Layers	276	1.38	87	2
	Duals (broiler and layer)	2581	5.99	37	4
	Japanese Quail	3	0.00	0	1
	Turkey	65	0.50	55	0
	Emu	3	0.02	0	0
	Ducks	3872	0.92	51	2
	Others	4806	2.73	195	2
	Total	**15515**	**18.75**	**968**	**13**
Piggery	Piglets	93	1.63	32	6
	Total	**93**	**1.63**	**32**	**6**
Fisheries	Indian carp	5541631	2.56	376	3
	Exotic carp	17152	0.49	0	1
	Others	2000	0.01	0	1
	Total	**5560783**	**3.06**	**376**	**5**
	Total	**5577263**	**38.11**	**1432**	**31**

Chapter-7

SUCCESS STORIES

1) Tomato cultivation on raised bed and staking method for better production and income (KVK Ambedkar Nagar)

Introduction:- Sri Ram Shankar Maura is 28 years old. 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 including tomato and 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 on Scientific vegetable production in July,2021 in which Sri Ram Shankar Maura participated and he acquired skills 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: - Sri Ram Shankar Maura applied the recommended doses of fertilizers NPK120:60:50 kg /ha in hybrid tomato crop as per recommendation of KVK scientists. He inverted cost of cultivation Rs.62100/ha and obtained gross return- Rs. 280300/ha and B: C ratio-4.5:1. He got total net profit from TomatoVariety-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 Ram Shankar Maura is very happy on improvement in his income, livelihood by latest scientific technology of tomato and other seasonal vegetable production.

Impact:- Sri Ram Shankar Maura has become 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 security and empowerment. Now this techniques is adopted by 12 farmers in his village by seeing and believing.



Field of Sri Rama Shankar Maurya of tomato production on raised bed and staking method

2) Establishment of FPO for Lemongrass (Krishna Variety) oil production : Amroha

Situation Analysis/ Prpblem statement: Mrs. Hitesh, village Chakchhavi, Post:Kothi Khidmatpur, Block: Amroha, District: Amroha, a farm women was selected for the spread of technology to double farmers income with high yielding variety of Lemongrass.

Plant, Implement and Support: KVK, Amroha tried to make her aware regarding improved cultivation of lemongrass that starts from land preparation to harvesting. This KVK has encouraged to her for soil testing and on the basis of that she was advised for balanced dose of vermicompost with high yielding variety Krishna Lemongras through scientific methods that was sown on 01-09-2021 with line sowing and vermicompost application as per scientists recommendation in organic condition.

Output: Mrs. Hitesh adopted the balanced dose of vermicompost in lemongrass as per recommended of KVK's scientist for 9 hectares. The data for traditional and high yield variety is given below :

Detail	Traditional method	Scientific method
1st Cutting Quantity	12 litre	20 litre
5th Cutting Quantity	60-70 litre	100-105 litre
Annual income	90,000-1,05,000	1,00,000-1,60,000
Increament	40%	

Outcome: New high yielding variety of Lemongrass (Krishna) introduced for empowerment and doubling her income. Farm women and farmers have widely adopted cultivation. Initially started in village Nazirpur, Block: Amroha and District: Amroha with other 8 village in total of 9 hectare of land in year 2019-20. Currently total 19 villages have adopted cultivation in total 175 hectares of land and 300 farmers field planted with scientific method using high yielding variety Krishna of lemongrass. The outcome of this technology dissemination motivated the farming communities to replace their traditional cultivation method with scientific method and high yielding variety. Mrs. Hitesh fells very happy on improvement in her income, livelihood, and set forth example for others.

Impact: Mrs. Hitesh has become one of the progressive and learned farm women for others with regards of popularization of Krishna lemongrass. This technology helps her livelihood, empowerment, and make her enthusiastic regards oil production. She is one of the progressive farm women after becoming a part of KVK activities and get her effectiveness for her own development. Mrs. Hitesh is very happy with her improved production and management technology and set forth example for other farmers and farm women of the district.

Cost of cultivation of Lemongrass

Year	Productivity (q/ha)	Production of oil (*l/ha*)	Cost of cultivation (*q/ha*)	Gross income (*Rs/ha*)	Net income (*Rs*)	C.B Ratio
Ist	60.5	120.00	75500.00	174000.00	98500.00	1:2.30
IInd	75.0	125.00	63500.00	187500.00	124000.00	1:2.95
IIIrd	86.50	129.50	65500.00	194250.00	128750.00	1:3.06
VIth	85.00	128.00	63500.00	192750.00	129250.00	1:3.04
Total	307.00	502.50	268000.00	748500.00	48050000	1:2.79



Sowing of lemongrass



Standing crop of Lemongrass (Variety- Krishna)

3) "Inter-cropping : good farming practices for increasing farmers income": Amroha District.

Situation Analysis/ Problem statement: Mr. Guruvachan S/O Shri Khemchand Singh, Village-Gularia, Block-Joya, District-Amroha, a farmer who was selected for this demonstrations. He was earlier involved with sole cropping of paddy, wheat & sugarcane. He was getting less profit from these sole cropping systems.

Plant, Implement and Support: Krishi Vigyan Kendra (KVK), Amroha has tried to make him capable regarding scientific cultivation of sugarcane, mustard & cauliflower in intercropping systems. That start from land preparation to harvesting. The KVK has encopuraged the farmers for soil testing and on the basis of that farmer was advised for inter cropping systems (Sugarcane + Mustard, sugarcane + potato & sugarcane + cauliflower) with high yielding varieties. That was sowing of Autumn sugarcane as a major crop using Trench method (1-1.5 m row to row distance) with mustard inter cropping in 01 acre area and sowing of sugarcane with potato inter cropping in 1 acre area and sowing of sugarcane with cauliflower between two rows of sugarcane in 01 acre area. All recommended agronomic practices were adopted for maintenance of proper crop density.

Output: Mr. Guruvachan has adopted the balanced dose of chemical fertilizers in sugarcane (N: P: K: S:: 150:75:40:30) kg/ha with additional dose of NPK as per recommendation of inter crop.and also using organic fertilizers such as vermi-compost, etc. in inter cropping model as per scientific recommendation/suggestions by KVK scientist's for his 04 acre land. Sugarcane + patato get first rank followed by sugaracne + cauliflower and sugarcane + mustard from inter cropping systems.. The economical gain in terms of net returns and C : B ratio are recorded Rs.3,61750.00 and 1 : 3.22 (Sugarcane + Patoto).

Detail of input and output in sugarcane intercropping system

S.No.	Crop	Productivity (q/ha)	Total expenditure (Rs.)	Gross income (Rs.)	Net income (Rs.)	C.B Ratio
1	Sugarcane (Sole)	860.00	98500.00	301000.00	202500.00	1:3.05
	Sugarcane +Potato	855.00 225.00	97500.00 65000.00	299250.00 225000.00	361750.00	1:3.22
2	Sugarcane (Sole)	875.00	98500.00	301000.00	202500.00	1:3.05
	Sugarcane +Cauliflower	865.00 125.00	96500.00 32000.00	302750.00 100750.00	275000.00	1:3.14

Outcome: KVK, Amroha create the awareness for adopted new high yielding varieties of mustard, sugarcane, poptato and cauliflower for conducted demonstrations. The outcome of this demnonstrations to replace old varieties, non-descriptive varieties. Mr. Guruvachan is very happy on improvement in his income, livelihood and set example for other farmers of District Amroha.

Impact: Mr. Guruvachan has become one of the progressive farmer for others with regards to popularization of inter cropping systems, organic farming systems, natural farming systems. This technology helps him for livelihood, empowerment and make him enthusiastic regards oilseed production in inter cropping systems. He is one of the progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development.

4) Crop Residue Management through Custom Hiring Center: KVK Bahraich-I

Rizwan Ali s/o Nausar Ali, residence of Village Ghasipur Block Fakharpur is one of the progressive farmer in the District Bahraich. He cultivated Paddy and Sesamum during kharif of year 2021, where he grew potato, lentil, mustard and wheat during rabi of year 2021-22. Meanwhile he also produced maize and black gram during Zaid of year 2021. The distance of his village from the KVK Bahraich -I is 20 km. He has been awarded on various platforms of District, State and National Levels. The major achievement of Rizwan was sowing of wheat using super seeder machine through custom hiring. He earns net income of Rs. 3,51,000/- by sowing wheat in about 200 ha area (Table 1).Along with applying custom hiring model, he also adopted an agricultural model on his own one-hectare land and earns an income of Rs. 1,27,000/-. In comparison to year 2020-21, there was 62% less cases of crop residue burning were reported in year 2021-22 in District Bahraich.

Brief information of custom hiring in CRM

Name: Rizwan Ali	Year	2021-22
Father's Name: Nausar Ali	Area Covered in Custom Hiring	200 ha
Village Ghasipur, Block Fakharpur, District – Bahraich - I	Own Area Cultivation Through CRM	3.0 ha
Mobile No. 8052162953	Income in Custom Hiring, Rs.	6,75,000.00/-
Education: 5th	Net Earnings, Rs.	3,51,000.00/-
Land Holding: 4.0 ha	Hiring Rate of Super seeder, Rs.	3,750.00/-

Economics of adopted One-Hectare Agricultural Model

Crop	Area, ha	Productivity q/ha	Cost of Cultivation,Rs.	Gross Income, Rs.	Net Income, Rs.
Paddy (NDR-2065)	1.0	54.0	41,150.00	104760.00	63610.00
Potato (KufriBahar)	0.6	125.0	27,000.00	137500.00	110500.00
Musturd (P.P.S.-1)	0.4	4.4	10,000.00	24200.00	14200.00
Maize (Dekalp-9108)	0.4	16.0	12,000.00	29000.00	18600.00
Black Gram (Sekhar-2)	0.6	6.0	15,000.00	36000.00	21000.00
Total	-	-	**1,05,150.00**	**3,31,460.00**	**2,27,910.00**

By adopting one-hectare agricultural model and custom hiring of super seeder, he earnedRs. 5,78,910.00/- in last one year.





5) Beekeeping as a small and remunerative enterprise (KVK Basti)

Situation and Analysis: Dinesh Kumar Verma is 33 years old rural youth belongs to a very poor family. He has 1.0 acre land and 6 members in his family. He has no extra income source, so he could not be able to support easily to his family.

Beekeeping is a domestic small enterprise in eastern region of Uttar Pradesh and marginal and landless farmers, women laborers and unemployed youth can get more benefits in less time with this enterprise. The weather of eastern Uttar Pradesh is favorable for beekeeping, so here there are wide possibilities of honey production due to the year round cultivation of many agricultural and horticultural crops by bee keepers. Keeping this scenario in mind, KVK scientists promoted bee keeping the district through various extension modules. This enterprise benefits beekeepers throughout the year by marketing honey wax, royal jelly, propolis pollen, bee venom, bee lineage etc. and indirectly through pollination, the production of quality crops and seeds also increases.

Plan, Implement, Support and Linkage KVK: He came in contact with Krishi Vigyan Kendra, Basti in 2016. Scientists of KVK Basti advised him to take the training on beekeeping. He learned technique and skill of bee keeping in training and demonstration at KVK Basti to generate more income for support his family. He started bee keeping in 2016 with investment of Rs. 20,000.00 with 10 boxes to rear the beekeeping. After then he started his business of honey.

Output: He continuously gets consultancy and touch with scientist of Krishi Vigyan Kendra, Basti. Then he started bee keeping with 10 Bee boxes and he purchased some colony from his own source.

Outcome: He started bee keeping with 10 boxes in year 2016 and got Rs. 12,000.00 in first year. He has achieved the confidence and established entrepreneur with a net annual income of about Rs. 1,20,000.00 with 40 boxes per year.

Economic Return of Dinesh Kumar Verma

Year	No. of Boxes	Yield (kg)	Rate (Rs)	Gross Return (Rs)	Rearing Cost (Rs)	Net Return (Rs)	B:C ratio
2016	10	200	200	40000	28000	12000	1.43
2017	15	270	230	62100	34500	27600	1.80
2018	20	360	250	90000	40000	50000	2.25
2019	30	540	275	148500	62000	86500	2.40
2020	35	630	300	189000	79000	110000	2.39
2021	40	720	310	223200	96000	127200	2.33

Impact: He is an example for the unemployed youths and landless farmers. Ultimately as a result he got several awards like as & Farm an Food Award 2016 & 2021 etc. The success of Dinesh Kumar Verma landmark in the field of Bee Keeping and by looking at other 34 farmers adopted the Bee Keeping as significant enterprise in the nearby area in dist Basti.



6) Bio-Fortified Wheat Variety DBW-173: A Successful cultivar (KVK Bijnour)





Introduction: Technology (Variety) DBW-173 has been developed by the IIWBR, Karnal released during 2018. This variety DBW-173 is rich in iron (40.70 ppm) and protein (12.50%) in comparison to 28.00 ppm iron 8-10 % protein in other wheat varieties.

KVK intervention: The area under Wheat is about 1,45,000 ha in district Bijnor, out of that about 80,000 ha area is Late sown condition. Commonly grown timely sown wheat varieties are HD-3059, DBW-16, and PBW-226. Variety DBW-173 was introduced and demonstrated by KVK Bijnor during Rabi-2018-19, 2019-2020, 2021-22 and 2022-23 at 55 farmer's field through OFT &FLD.

Output: The average yield at Farmers field was 47.62 qt per ha (55.00 qt. maximum yield per ha.) with cost of cultivation of Rs. 46780.00 per ha. The average net profit per ha was recorded Rs. 71585.63 per ha. Maturing period is 120-122 day crop duration, bold grained variety resistant against yellow rust and leaf blight.

Outcome: This technology has been found to be increased for extra net return of farmers due to better yield and higher enrichment with zinc and iron and also suitable for chapatti making better quality comparison to other varieties.

Impact: The area under this variety has now spread to more than 17500 ha in just four year. Farmers are all satisfied with the yield of this variety and also claim that it is better for chapatti making. The successful farmer is Sri Ajay Kumar Village – Bagwada, Block – Noorpur, District- Bijnor.

7) Fish farming has been enabled for sustainable income generation

Introduction: Sri Dinesh Jaiswal S/o Sri Chotaka a young farmer belonging to small farmer categories was unemployed and habitants of Village - Itwa, Block – Ramnagar District – Chitrakoot UP. He is small farmer doing crop farming. Mr Dinesh searched job and consulted every where for employment. Lastly he decided to do fish farming along with crops. He has 2 ha land in a joint family. Earlier he was not doing fish farming.

KVK intervention: Mr. Dinesh consulted with KVK Chitrakoot and visited Demo unit at center. He showed his interest in fish farming, kvk trained him in composite fish farming techniques and learned about pre and post stocking management with package and practices. He excavated pond of 2500 Sqm and started fish cultivation with appropriate size of IMC fingerling. After few months Dinesh stocked 3000 Pungas fish seed in his pond with IMC during 2021-22. Feeding and water quality management takes place efficiently in consultation with KVK SMSs.

Output: Mr. Dinesh adopted all package of practices stocked 5gm size fingerling of Catla, Rohu, Nain and Pungasius @ 10000 per ha and the feeding was done by floating fish feed and manage water quality by application of lime and disinfectants with the consultation of KVK scientists time to time. He stocked IMC during October 2021 and Pungasius stocking was done during march 2022. Manuring and fertilization is done properly. He has harvested fish during November 2022 and obtained yield up to 118.4 q/ha with B:C ratio of 1.40

Outcome: Fishery is suppletory occupation in the district even after availability of large number of small, medium water bodies. This business is limited to some families belonging to Kewat, raikwar, nishad community. Now due to innovations youth of other community comes forward and adopting fish farming in scientific way. 1200 ponds available in the district and about 977 are engaged under fish farming. 15-20 farmers adopted fish farming with pungasius variety. The training and demo motivated farmers to adopt new technologies. Mr. Dinesh is very happy on improvement in his income, livelihood and set forth example for others

Impact: Mr. Dinesh Jaiswal is an example for others who want employment. This new farming has helped him to get extra income and employment opportunity. He is very happy to share his success among others and popularizing this system to others in the district and state.



A farmer with His produce



Farmer with fish

8) Mushroom cultivation for diversified enterprise (KVK Hapur)

In case of diversification with large scale promotion of mushroom grower of Srivikas Tyagi s/o Sri Chandraprakash Tyagi vllage & Tahsil – Garh District Hapur prograssive farmer was selected for demonstration of mushroom cultivation.Earlier he was civil contracter in Govt.of U.P. after this he was started to cultivate of traditional method of mushroom and he earned low income.

Plan implement and support: Looking keen interest of Sri Vikas Tyagi for cultivation of mushroom at large scale he contact to KVK Hapur (earlier to Hapur tahsil of Ghaziabad). KVK Hapur provided technical suport for cultivation and marketing of mushroom, so many time practical demonstration facilitated from Dr Gopal Singh Prof (Plant pathology) & incharge mushroom production unit SVPUA&T Meerut U.P. Mr Vikas Tyagi has started large scale mushroom production in Sept 2019 in the chairmanship of Hon ble Vice Chancellor Prof. Gaya Prasad and supervisionship of Dr S.K,Sachan Director Extension with technical suport of Dr H.R.Singh Prof. &Head KVK Hapur and Dr Gopal Singh Prof.(Plant pathology) &incharge mushroom production unitv SVPUA&T Meerut U.P.

Output: Mushroom production was started at small scale with the technical suport of KVK Ghaziabad.Scope&demond of market he started large scale production and established c with financial suport of bank sri Vikas Tyagi started production from 05 Kg mushroom per day get average rate Rs125.00-130.00 per Kg total income of Rs 625.00-650.00 per day.Now adays he produce average 300 Kg per day in whole years got gross income Rs 37500.00perday expenditure Rs 16500.00 , take net income Rs 21000.00 perday and employed 8-10 manpower per day.

Impact: Mr Vikas Tyagi is becoming one of the progressive and learned farmers for other regards to high tech & quality mushroom production, popularization with solar base. This technology helps him for livelihood, empowerment and make him enthusiastic regards 15 mushroom production unit establised in Hapur and neighboring district. He is one of progressive farmer after a becoming a part of KVK activities and get their effectiveness for his own development of high tech production and marketing training centrenamly Manyuk Agro processing &production centre Garh Hapur. Mr Vikas Tyagi is very happy with this improved production and management technology and set for the example for other farmer of the district.







9) Goatery as the profitable income generating enterprise for rural youth (KVK Kaushambi)

Introduction- An unemployed youth Farmer Ramesh Kumar living in village- Turanti ka pura, block- Chail, Kaushambi, is engaged in farming and house hold animals. The youth of this village and surrounding area are migrated towards city for the employment. The employment pattern of this district is mainly farming and animal husbandry and farm labor in rural area. Educated Sri Ramesh Kumar is enthusiastic in modern agriculture practices and develop to push the pace of diversification with a view to raise the income.

KVK Intervention-Sri Ramesh Kumar was rearing goat in traditional method and sold in local market. Every year he lost 5-6 goats (kids and old once) among from goat unit. The cause of mortality was low body weight kid born, diarrhoea, disease outbreak, poor management. After taking proper advice from the KVK, Kaushambi, he followed improved rearing method, deworming, vaccination (PPR and ET) feeding (use of feed supplement and UMMB), care and management of pregnant doe, separation of sick animals, hygiene, proper ventilation and foot baths for foot rot infection, due to this expertise after training he earned perky amount in short duration of time. After that KVK, Kaushambi selected as Rural Youth under extra income activity threat and sponsored Goat unit with shelter (semi-intensive method and) under ARYA project to him for his enthusiastic and hard-working efficiency. The goat mortality rate was declined and farmer is getting more profit. Initially he started rearing goat of mixed and barbari breed and with passing time he owned about 20 (adult and kid) at his farm. The reasons behind his success are timely vaccination of goats to prevent diseases. In feeding, he uses green grasses, cereal grains, pulses and feeding of UMMB as supplement, by products to meet notional requirements for better milk and meat production. He is very much to scientist with KVK. He applies goat excreta as manure for crop production in his field.



Outcome- Mr. Ramesh and his family are engaged in farming along with other allied income generation activities such as goat farming and cattle farming. Initially he earned net profit of Rs. 30,000. After one year, goat's



number increased up to 17, he got Rs. 1, 20,000. This may have a very good example of establishing new venture.

Impact-the people of surrounding area are appreciating his efforts and now following his ways for a better life and income generation. He suggests an unemployed youth without land and low investment capacity can start a small-scale goat farming under partial feeding. Local market has more demand for Chevon in comparision to mutton.

10) IFS for household income enhancement (KVK Mau)

Situation analysis/Problem statement: Sri Rakesh Singh, vill Ailakh Imiliya, Post Ailakh, Distt. Mau is 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 SMSs at KVK.

Plan, Implement and Support: KVK scientist after visiting the farm advised for fishponds in low Land area. The soil dug may be utilized as fillings to raise the level of other area. Raised area could be utilized 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. Later he took training on Poultry farming, Dairy, Bee keeping, Mushroom production, Crop production and Horticulture from Krishi 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 SMSs and suggestions for further improvement paved the way of his success.

Output: Sri Singh 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 mixture
Crop Production	Wheat, Paddy, & Field pea	2.0 ha	43.4 q/ha	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	1.75:1
Dairy	120000	216000	96000	1.8:1
Poultry	240000	360000	120000	1.5:1
Crops	130000	240000.0	110000	1.84:1
Intercrop	9500	20000	10500	2.10:1
Agribusiness	70000	130000	60000	1.85:1
Total	**769500**	**1316000**	**546500**	**1.71:1**

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





11) Protected cultivation as remunerating enterprise (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 SMSs 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 micro irrigation 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 **SMSs**, he was advised to choose Grand Nain (G-9) cultivar of banana for plantation and cucumber (*kheera*) and muskmelon as off-season vegetable cash crop. He was provided with all the technical inputs by the KVK in order to convert his idea into practice.



Output : With conventional farming practices, Mr. Dubey was earning Rs. 1.60 to 1.75 lakh annually and with establishment of protected cultivation of cucumber and muskmelon and plantation of banana he has recorded an earning of Rs. 468500 during the year 2022, a handsome over 271% 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 micro irrigation systems and some of the farmers have started their attempts in this direction.

12) Aquarium construction providing livelihood and an enthusiasm (KVK Muzaffarnagar-II)

Introduction: Mr. Vikrant, village Nangla Kabir, Block Jansath, a 22 year school dropout farmer was selected for the rural youth training on aquarium construction. He was originally involved in youth.

KVK intervention: Provided rural youth entrepreneurial training about all the steps involved in aquarium construction and sale. The economics of the aquarium construction and the ways and methods to save maximum on the sale was imparted through skill training.





Output: Mr. Vikrant got trained in aquarium construction and started his business for the aquarium construction and sale to the nearby areas. He got two big orders for which his initial input was Rs. 2000 and got an estimated profit of Rs. 7000. Later, he participated in a talent competition of the Khatauli sugar mill and received a prize of Rs. 5100 for his aquarium construction.

Outcome: Based upon his Aquarium construction skill he was awarded a permanent job in the Khatauli sugar mill at a monthly wage of Rs. 14000. He is currently the bread bringer for his family and is very satisfied and happy with his new skill.

Impact: The rural youth training has provided a great impact on the life of Mr. Vikrant and his family members. He has started his own business and his now employed based upon his capable skill. This training has helped him by providing livelihood and an enthusiasm to learn and expand his business enterprise. Now he is one of the active participants of the KVK activities and shows keen interest to learn new things. Success of Mr. Vikrant has paved way for other young farmers and self help groups to take up aquarium construction as a profitable venture.

13) Successful IFS Model (Veg+Paddy+Nursery+Dairy+Vermicompost) (KVK Sonbhadra)

Situation analysis/Problem statement: Sri Babu Lal Maurya Village Manpur, Block Robertsganj, District Sonbhadra (Mobile No. 9559456465, Adhar No. 802488437865) is having 5.50 acre of land. He always used to apply different innovators in agriculture especially in vegetable crops. Initially Sh. Babulal used to grow cereals (Ricer-Wheat) in his land with traditional practices. After coming in the 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 production technologies 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

- Staking in tomato,
- Low tunnel technology of vegetable nursery,
- Line sowing,
- Use of improved varieties of vegetables and cereals
- Use of liquid fertilizers
- SRI technique in Paddy
- Use of Green manuring and vermi compost
- Off season cultivation of vegetables
- Cultivation of lofted vegetable
- Cultivation of shade loving crop like Turmeric

Regular visits of KVK facilitators for further improvement paved the way of his success.

Output: Sri Babu Lal Maurya 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 & 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
Vegetable Production	175000	865000	690000	4.94:1
Crop Production	65300	165400	100100	2.53:1
Mini Sprinkler	125000	445500	320500	3.56:1
Drip Irrigation	35500	215000	179500	6.05:1
Vermicompost	28000	96000	68000	3.42:1
Dairy (Cattle/Buffalo)	65700	229600	63900	3.49:1
Total	**494500**	**2016500**	**763200**	**3-99:1**

Outcome: Sh. Babu Lal Mauraya has been an ideal example among the farming community of the entire district. He was also awarded with different district and state level awards from Agriculture and Horticulture Departments of 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.








14) Successful IFS Model (Dairy+Poultry+Fishery+Orchard+Fodder+) (KVK Unnao)

Situation analysis/Problem Statement: Mr. Ajay Pratap Singh Village Shadipur, Block Bangarmau, District Unnao (Mob. No. 979477553) is having 12.00 acre. It was low productivity land due to alkaline soil (more than 8.5 pH) and having limited alternative of crop production. He contacted and visited IFS Model at KVK, Unnao and interacted with SMSs of KVK. The SMSs of KVK also visited at farmer field and suggested its intervention.

Plan , Implement and Support: SMSs of KVK after visiting the farmer farm suggested going for ponds in low land area. The soil dug may be utilized as filling to raise the level of other land or area. Other area without pond will facilitate to establish other components of IFS related activities. Training imparted on Fish farming at KVK, which helped him in successfully raising the fishpond. He was also suggested to establish a duckery unit besides of the fish pond. He took training on Dairy, Goat farming, Poultry, Crop Production and Horticulture from KVK, Unnao and added these units from time to time. KVK, Unnao supported him by providing technical expertise, seed and planting materials, suitable breed of dairy animal, goat, poultry and facilitated exposure visits. KVK experts were visited regularly and suggestion for further improvement paved the way of his success.

Output: Mr. Singh has developed the IFS Model in such a way that approximately every components 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 various components

Component	Breed/ Variety	Number/ Area	Average Yield	Feed/Nutrient Management
Dairy (Cattle/Buffalo)	Gangatiri and Murrah	4	1820 kg/lactation	Straw, Concentrate and green fodders *liz.* Berseem, Napier, Sorghum, Maize and MP

				Chari
Goatery	Jamunapri and Barberi	5	34 kg/ animal	Straw, grass, Berseem, leaves of fruit, vegetables and trees Concentrate and green fodders
Poultry	Vanaraja, Aseel and kadaknath	12	180 eggs/bird	Wheat bran, farm waste
Duckery	Khaki Campvell and Mixed	18	192 eggs/duck	Farm waste, concentrate and feeding from fishpond
Fisheries	Rohu, Katla and Grass corp	40000 fingerling	3000 kg/acre	Farm/Dairy/Poultry/Duckery waste and concentrate mixture
Banana	Local and G9	100 plants	4000 kg/year	Manure from dairy and irrigation from pond water
Mango	Dasehari and Amrapali	50 plants	10000kg/year	Manure from dairy and irrigation from pond water
Crop production	Wheat, Paddy and Maize	7 acre	4500 kg/acre	Manure from livestock and poultry, farm waste, vermicompost and DAP/Urea
Fodder	Napier, Sorghum, MP Chari, Berseem and Maize	1.5 acre	65000 kg/year	Manure from livestock and poultry, farm waste, vermicompost and DAP/Urea

Annual Average return from various Components of IFS Model

Units	Cost of production (Rs.)	Gross Return (Rs.)	Net Return (Rs.)	Benefit Cost Ratio
Dairy	140872	294422	153550	2.09:1
Poultry	8020	12591	4571	1.57:1
Duckery	8500	16575	8075	1.95:1
Fishery	102500	317750	215250	3.10:1
Banana	12000	57815	45815	4.81:1
Mango	30000	120000	90000	4.00:1
Crops	334600	619010	284410	1.85:1
Total	**636492**	**1438163**	**801671**	**2.36:1**

Outcome:

Through, Adoption of IFS model Mr Singh's income has more than two times and his success encouraged other farmers of the district and 10 farmers want to establish same IFS models after visiting IFS model of Mr. Singh.






15) Successful IFS Model (Paddy+Pulses+Sugarcane+Veg+Cereals) (KVK Varanasi)

Situation analysis/problem statements: Sri Kamlesh Singh, village Kallipur, block Arajiline Distt. Varanasi having 8.00 acre land. He is followed paddy – wheat cropping system on his field. He was facing the problems of poor yield and low income from their farm. Sri Singh 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 Kamlesh Singh and briefed to him for establishment of integrated farming system on his field. After visit of scientist he changed his 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 on Sri Kamlesh Singh's field for technical backstopping after the crops and animals. Scientist also advised 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 Kamlesh Singh 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 his various crops that helped 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	Potato	0.25	20000	5000	25.00	20000	15000	4.00
12	Veg. Pea	1.00	15000	15000	65.00	97500	82500	6.50
13	Cauliflower	0.25	15000	3750	23.00	24150	20400	6.44
14	Onion	0.25	17500	4375	15.00	22500	18125	5.14
15	Brinjal	0.25	18500	4625	22.00	26400	21775	5.71
16	Garlic	0.25	17500	4375	4.50	18000	13625	4.11
			Total	**222000**		**792903**	**570903**	

Economics of Orchard

S. 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	Lemon					
4	Maringa					

Economics of Animal Husbandry

Sl. No.	Animals	Numbers	Operational Cost	Total income from milk	Net income	B:C ratio
1	Buffalos	2	40000	88000	45000	2.25
2	Cow	1	10000	16500	7500	1.18






Economics of IFS system

Total cost of cultivation per year: Rs. 280000/-
Total income per year: Rs. 922403/-
Net income per year: Rs. 640403/-

16) Promotion of *kharif* groundnut cultivation in district – Sitapur (KVK Sitapur-II)

Introduction- In the 1980s-90s, the area under groundnut in Sitapur was 27 to 30 thousand hectares. However, gradually this area came down to 1,662 hectares (2010-11). Till the 1980s-90s, Sitapur and the surrounding districts were considered to be major producers of groundnut during kharif season, which contributed greatly to the farmers' economy. But with the passage of time, this identity of Sitapur district started decreasing. During 1980-90, there were 110 oil mills in Sitapur, which played an important role in providing market to groundnut growers in the district and strengthening their economy, but now it has come down to only six.

Participated survey was conducted by Krishi Vigyan Kendra-II, Sitapur which revealed that industrial decline, lack of advanced agricultural technologies, loss from wild animals (blue-bull) and expansion of sugarcane cultivation are the main reasons for the declining area under groundnut.

Intervention by KVK-II, Sitapur towards revival of groundnut in Sitapur district.

Taking this important point into consideration, Krishi Vigyan Kendra, Katia, Sitapur started work on groundnut development in Sitapur and nearby districts. Before the year 2017-18, maximum farmers of Sitapur district were used to grow groundnut in rainy or kharif season.



Krishi Vigyan Kendra, in its various field programmes, found that the rainy season as well as summer groundnut can be also cultivated successfully in the district and for this all the agricultural conditions are good.

Krishi Vigyan Kendra organized various demonstrations of groundnut variety TG-37A in the district in compliance with the targets set by the Agricultural Technological Application Research Institute (ATARI), Kanpur under the Cluster front line demonstration scheme. This variety performed in both Kharif and Zaid season.



Outcome: Inspired by the performance of zaid groundnut, facilities being provided to farmers under cluster frontline demonstration (cFLD) and technical support of Krishi Vigyan Kendra, once again the old identity of the district is coming back. The introduction of groundnut in zaid has given a bonus to the farmers because farmers often left their fields empty during these summer months. There is only bonus for groundnut farmers giving good profits in just 100 to 110 days. At the same time, it has also been rapidly adopted in intercropping such as with sugarcane, with maize, with pigeon pea etc. It is also increasing the fertility of the soil, giving good returns at a very low cost.

Recognition: For excellent work on groundnut promotion in Sitapur and adjoining districts, Krishi Vigyan Kendra, Katia, Sitapur has been recognized by Directorate of Groundnut Research, Junagadh, Gujarat as (AICRP) All India Coordinated Research Project - (Groundnut) Volunteer Center from the year 2020-21. Earlier, during the decade of 1980-90, the area of groundnut in Sitapur was ranging from 27-30 thousand hectares.

17) Women empowerment through Agro-based enterprises (KVK Sitapur-II)

Introduction: Smt. Pratibha Trivedi is a 46-year-old woman farmer from Village- Saraiya Mirzapur, Block- Biswan, District- Sitapur, U.P State. Today, as an independent farmer, she is happy to provide her family with nutritious food and provide employment opportunity for women farmers through small agro enterprises.



Smt. Pratibha Trivedi never let down her morale even though she was not physically strong. After completing her post graduation in Hindi, she adopted the innovations of agriculture and allied subjects on her small land to support the family. Now she has made her identity as a successful woman farmer.

Prior to this Mrs. Pratibha Trivedi was a traditional farmer who owned 1 acre of land, adopting old traditional farming methods and growing local vegetables like beans, pumpkin, tomato, gourd etc. to support her family. Due to less knowledge on new agricultural techniques and practices, her hard work was not getting the result they should have.

Training & motivation: Krshi Vigyan Kendra- II, Sitapur interacted with Smt. Pratibha Trivedi during the years of 2016.

Krishi Vigyan Kendra motivated her to take up agriculture as agribusiness work, under which she received training on "Charcoal briquettes from agricultural waste, vermicompost production, lamps and pots making from cow dung and nutrition garden.

Achievements:

- After the training, the women were greatly influenced by the work of Pratibha Devi and expressed their desire to work together with her.
- Smt. Pratibha Devi formed a group after talking to all the women who wanted to work together, the group was named **"Sheetal Mahila Svayam Sahayta Samuh"**
- Pratibha Devi got all the women of the group trained through Krishi Vigyan Kendra
- Now the identity of Smt. Pratibha Devi and her group has become, Stalls are put up by their group in the exhibitions, fairs etc. organized in the district. There is a lot of demand for lamps made from cow dung during Diwali. The charcoal briquette made by them is in great demand in the local market.

Awards/recognition: She has received many Awards at District Agriculture Departments, Non-Government Organizations, NRLM, Krishi Vigyan Kendra etc.

Impact on other farmers:

- Now she is an entrepreneur with a resource rich family. Along with this, she never let physical problems hinder his goal. She also performed the responsibility of a teacher in the initial times. Taking some time out of the busiest time, wrote poems too
- Her life story has inspired many women those consider their physical weakness as a hindrance in life.

Income-expenditure statement:

S. N	Units	Production Qt/No.	Rate	Gross Income (Rs.)	Expenditure (Rs.)	Net Income (Rs.)
1	Vermi compost production	40 qt.	700/qt.	28000	12000	16000
2	AgroWaste Charcoal briquette	10 qt.	280/ Kg.	280000	150000	130000
3	Cow dung lamps	7 qt.	350 Kg.	245000	105000	140000
4	Cow dung pots	1200	25/- peace	30000	12000	18000
5	Grow Bags 15"x15" (Pack of 10)	300 (Packet)	950/pack	285000	150000	135000
		Total				**4,39,000**



Agro-based range of products

Chapter-8

PUBLICATIONS AND HRD

A total of 41 publications including research papers (18), book chapters (13), popular articles (4), technical report (1), newsletters (4) and bulletin (1) have been published by ICAR-ATARI, Kanpur. Also under HRD 3 trainings programmes were attended by ATARI staff. In addition to this 4 training programmes were organised by ATARI for KVK staff. Under the events category 6 workshops, 62 meetings (virtual & physical) organised by ICAR-ATARI, Kanpur

KVKs also published a total of 18888 publications including 43 books (43), training manual (205), book chapter (156), abstracts (85), research papers (235), seminar papers (314), technical bulletins (2723), technical reports (365), proceedings (363) and others (14399). Under HRD programmes Directorate of Extension organised 21 programmes with the participation of 583 KVK scientists.

9.1. PUBLICATIONS AND HRD BY ATARI

9.1.1 Papers in research journals

1. Pandey Sadhna, Dubey S.K., Singh Atar , Gautam U.S. , Singh Raghwendra, Tripathi Kirti M. , Saurabh, Anuradha Ranjan Kumari , Singh Archana and Awasthi Nimisha. 2022. Drudgeries and Occupational Health Hazards Perceived by the Women Farmers in Central zone of Uttar Pradesh. Journal of Community Mobilization and Sustainable Development, 17 (1) P: 61-66

2. Deepak varshney, Promod k. Joshi, Anjani k, Ashok Kumar and Shantanu Kumar Dubey (2022) Examining the transfer of knowledge and training to smallholders in India: Direct and spillover effects of agricultural advisory services in an emerging economy. World Development 160(1):106067 DOI:10.1016/j.worlddev.2022.106067. P:1-15.

3. Bishwa Bhaskar Choudhary1, Purushottam Sharma, Mukesh Choudhary, Sunil Kumar, R. P. Dwivedi, H. S. Mahesha, S. K. Singh and Shantanu Kumar Dubey (2022) Does adoption of improved agricultural practices reduce production costs? Empirical evidence from Bundelkhand region, Uttar Pradesh, India. November 2022. Current Science 123(10):1232. DOI:10.18520/cs/v123/i10/1232-1236. P:1232-1236.

4. Uma Sah, Vikrant Singh, Hemant Kumar, Rekha Rani, S.K. Dubey, Jitendra Ojha, Mohit Katiyar and Prasoon Verma (2022) Value Chain Analysis of Field Pea: A Case of UP Bundelkhand Region of India. Journal of Community Mobilization and Sustainable Development Vol. 17(3), July-September 2022, P:701-710.

5. D. K. Pandey, Shantanu Kumar Dubey, A. K. Tripathi, Barun Singh and B. N. Hazarika (2022) Economic gain apropos socio-ecological pain: expansion of plantation crops in biocultural jhumscape of North East India. Current Science, Vol. 123, No. 6, 25 September 2022, P:767-771.

6. Nishi Sharma, Pratibha Joshi1, Nafees Ahmad, J P S Dabas1, S Chakravorty, N V Kumbhare, P Punitha, Shantanu Kumar Dubey, Nand Kishore And P P Maurya (2022) Quantification of informal spread of high yielding wheat (Triticum aestivum) seeds among farmers of National Capital Region. Indian Journal of Agricultural Sciences 92 (9): 1091–1095, September 2022/Article https://doi.org/10.56093/ijas.v92i8.112096, P:51-56.

7. Uma Sah, G.P. Dixit, Hemant Kumar, Jitendra Ojha, Mohit Katiyar, Vikrant Singh, and S.K. Dubey (2022) Decadal Analysis of Cereal Production in Bundelkhand Region of Uttar Pradesh. Journal of Community Mobilization and Sustainable Development Vol. 17(1), January-March 2022, P:189-196.

8. Abhishek Mishra, O.P. Yadav, Swatantra Pratap Singh, Rajeev Singh, Nikhil Vikram Singh and S.K. Dubey (2022) ICT Tools Use Pattern of Farmers: A Review. Journal of Community Mobilization and Sustainable Development Vol. 17(1), January-March 2022, P:1-6.

9. Sadhna Pandey, S.K. Dubey, Atar Singh, U.S. Gautam, Raghwendra Singh, Kirti M. Tripathi1, Saurabh, Anuradha Ranjan Kumari, Archana Singh and Nimisha Awasthi (2022) Drudgeries and Occupational Health Hazards Perceived by the Women Farmers in Central zone of Uttar Pradesh. Journal of Community Mobilization and Sustainable Development Vol. 17(1), January-March 2022, P: 61-66.

10. Uma Sah, G.P. Dixit, Hemant Kumar, Jitendra Ojha, Mohit Katiyar, Vikrant Singh, and S.K. Dubey (2022) Decadal Analysis of Cereal Production in Bundelkhand Region of Uttar Pradesh. Journal of Community Mobilization and Sustainable Development Vol. 17(1), January-March 2022, P:189-196.

11. Dileep Kumar Pandey , Himansu Kumar De , Shantanu Kumar Dubey , Bagish Kumar , Shivani Dobhal , P. Adhiguru (2022) Get rights and content Forest Policy and Economics Indigenous people's attachment to shifting cultivation in the Eastern Himalayas, India: A cross-sectional evidence. https://www.researchgate.net/publication/360105838. Forest Policy and Economics Volume 111, February 2020, 102046, P:1-4.

12. D K Pandey, S K Dubey, H K De and Amit Singh (2022) Indigenous people's attachment to traditional agro forestry system: An empirical insight from Churachandpur, Northeast India. Indian Journal of Traditional Knowledge Vol 21(2), April 2022, pp 1-6.

13. Ashwani verma, R.K. Doharey, Shantanu Kumar Dubey. O.P. Singh and S.N. Singh March (2022) Determinants of behavioral indicators of potato (Solanum tuberosum) growers in Kannauj district of Uttar Pradesh. March 2022 Indian Journal of Agricultural Sciences 92(2):236-239 DOI:10.56093/ijas.v92i2.122228.

14. Dileep Kumar Pandey,Kalkame Ch Momin, Shantanu Kumar Dubey, Poovaragavalu Adhiguru (2022) Biodiversity in agricultural and food systems of jhum landscape in the West Garo Hills, Springe, North-eastern India. Food Security https://doi.org/10.1007/s12571-021-01251-y. Springer, p:

15. Dileep Pandey, Shantanu Kumar Dubey, Ashwani verma, L. Geetarani Devi and Chabungbam Victoria devi January (2022) Plural Society in Peril: Psychological Well-Being of Jhumias Following the Decline of Shifting Cultivation in the Indian Himalayas. SSRN Electronic Journal. DOI:10.2139/ssrn.4055232. https://www.researchgate.net/publication/359191100.

16. Uma Sah1, Vikrant Singh, Jitendra Ojha, Mohit Katiyar and S. K. Dubey (2022) An Insight into Value Chains of Green Gram in Bundelkhand Region of India. Indian Journal of Extension Education Vol. 58, No. 3 (July–September), 2022, http://doi.org/10.48165/IJEE.2022.58333.p: 163-169.

17. S. K. Dubey, U. S. Gautam and Atar Singh (2022) Pulses Yield Gap Minimization: Consequences of CFLD-Pulses in India. Indian Journal of Extension Education Vol. 58, No. 3 (July–September), 2022. http://doi.org/ 10.48165/I JEE.2022.58314. https://www.researchgate.net/ publication /361634773, p: 65-69.

18. Uma Sah, Vikrant Singh, Jitendra Ojha, Mohit Katiyar, Shantanu Kumar Dubey, Shantanu Kumar Singh and Prasoon Verma (2022) Chickpea Value Chain in Bundelkhand Region of India: An Empirical Insight. http://dx.doi.org/10.48165/IJEE.2022.58406.

9.1.2 Book Chapter

1. Tripathi Kirti M., Dubey S. K. , Pandey Sadhna, Vivek Raj, Arya Savita and Singh Shiv. 2022. Gramin mahilaon ke liye suchhm udyam vikas ki sambhavnayen avam yognay, In: Krishi

Prasanskaran me udyamita vikas. Chandra Suresh, Durvesh Kumari, Goyal Sunil Kumar, Ratnesh Kumar and Shamsher (eds.), published by New India Publishing Agency, N. Delhi: 37-42.

2. साधना पांडे, अतर सिंह और राघवेंद्र सिंह (2022) कृषक महिलाओं के ज्ञान बर्धन में कृषि विज्ञान केंद्रों की भूमिका. कृषि सोध दर्पण. *https://www.researchgate.net/publication/365039704.Book chapter, P:46-50.*

3. Shantanu Kumar Dubey (2022) Effective Extension Methods for Upscaling and Outscaling of Wheat and Barley Production Technologies September 1-10, 2021 Chapter 15 Upscaling and outscaling of Technologies : Learnings from Institute-Post office linkage model. https://www.researchgate.net/publication/363738070. Bokk chapter.

4. Anuj Kuamr, Shantanu Kumar Dubey, R. Sendhil, A.K.Mishra, Uma Sah. Truptimayee, Suna and Ramesh Chand (2022) Smart and Sustainable food production technology. Springer. http://dx.doi.org/10.1007/978-981-19-1746-2_1. Book chapter, P:3-24.

5. Uma Sah, Kushagra Joshi, and Shantanu Kumar Dubey (2022) Gender Issues in Farming: Challenging Socially Embedded Positions in Agrarian Contex. Book chapter, p 77-89.

6. Shantanu Kumar Dubey, Reshma Gills, Atar Singh, uma Shah and Rajarshi Roy Burman April (2022) Agricultural Value Chains: A Cardinal Pillar for Future Development and Management of Farming. DOI:10.1007/978-3-030-93262-6_13 In book: Agriculture, Livestock Production and Aquaculture (pp.243-273).

7. Uma Sah, S.K. Singh and S.K. Dubey (2022) Technology Dissemination Using Social Networks:Learningof Farmer-to-Farmer Approach. *https://www.researchgate.net/ publication/ 359209628.* Book chapter-8, p:141-157.

8. Dileep K. Pandey and Shantanu Kumar Dubey (2022) Diversity In Shifting Cultivation System And Crop Species. https://www.researchgate.net/publication/364195062.

9. Ashwani Kumar Verma, V.K. Singh, Rabeesh Kumar Verma, Akash4, Abhijeet, D. Shailja Kamal and S.K. Dubey (2022) Farmer Producer Organizations as the Tool for Economic Improvement of Farmers in Kannauj District of Uttar Pradesh: Empirical Analysis. Journal of Community Mobilization and Sustainable Development Volume 2 (Seminar Special Issue) May 26-28, 2022: pp 691-696.

10. S. K. Dubey, Reshma Gills, Atar Singh, Uma Sah, and R. R. Burman (2022) Agricultural Value Chains: A Cardinal Pillar for Future Development and Management of Farming Keywords Agricultural value chains · Management of farming · BDS · AAER · Stakeholders. https://www.researchgate.net/publication/362325201. P:243-273.

11. Shantanu Kumar Dubey and Reshma Gills (2022) Ensuring Convergence: Guarantying Technological Adoption. Agriculture and More: Beyond 4.0" May 26-28, 2022, organized by Society for Community Mobilization for Sustainable Development in collaboration with SKUAST-Kashmir & SKUAST-Jammu P:52-60.

12. Anuj Kumar, Shantanu Kumar Dubey, R. Sendhil, Vikas Kumar Singh, and Satyavir Sing (2022) Modern Extension Tools and Approaches for Upscaling, Outscaling and Deep-Scaling Wheat and Barley Technologies. https://www.researchgate.net/publication/359498601. Book chapter, P:135-136.

13. S.K. Dubey, Uma Sah1, N.K. Pandey, R.R. Burman and Atar Sing (2022) Institutional Extension Mechanism for Dissemination of Farm Technologies: A Case of Potato in Hills and Plain Situations in India.p:124-131. https://www.researchgate.net/publication/359209606. Book chapter, P:123-139.

9.1.3 Technical/popular articles

1. Sadhna Pandey, Atar Singh, S.K. Dubey, Raghwendra Singh, Rohit Kumar Sengar and Nikhil Vikram Singh. 2022. "*Poshan samvedi krishi sansadhan avam navonmeshan karyakram* ". Krishak Doot, March 29-April 04, 2022 P: 11&13.
2. Sadhna Pandey, U S Gautam, Atar Singh, S.K. Dubey, Raghwendra Singh and Rohit Kumar Sengar . 2022. "*Krishako ke utthan hetu upyogi krishi yognaye* ". Krishi Shodh Darpan, 2022. (VI) P: 1-7
3. Ashwani Kumar Verma, R K Doharey, S K Dubey, O P Singh And S N Singh (2022) Determinants of behavioral indicators of potato (Solanum tuberosum) growers in Kannauj district of Uttar Pradesh. Indian Journal of Agricultural Sciences 92 (2): 236–9, February 2022/Article, P:236-239.
4. N Manjunatha, H S Mahesha, Bishwa Bhaskar Choudhary, Purushottam Sharma, Sunil Kumar, Mukesh Chaudhary, S K Singh, R P Dwivedi, Shantanu Kumar Dubey, Avinash Chandra, A K Saxena, Sachendra, Prateek Shrivastava and Rohit Verma (2022) Use of pheromone trap and vermicompost. Indian Farming Use of pheromone trap and vermicompost for the success of vegetable growers of Bundelkhand, Uttar Pradesh. Indian Farming 72 (08): 98-100; August 2022,book chapter, P: 98-100.

9.1.4 Technical Report:

1. U.S. Gautam, Sadhna Pandey, S.K. Dubey Raghwendra and S.N. Yemul (2021). Annual Progress Report of KVKs Published by ICAR-ATARI, Kanpur.

9.1.5 News Letters:

1. U.S. Gautam, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2022). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-26, pp 1-8.
2. U.S. Gautam, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2022). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-27, pp 1-14.
3. U.S. Gautam, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2022). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-28, pp 1-8.
4. U.S. Gautam, S.K. Dubey, Sadhna Pandey, Raghwendra Singh & S.N. Yemul (2022). News Letter ICAR-ATARI, Kanpur published by ICAR-ATARI, Zone-III, Kanpur (U.P.). Volume-29, pp 1-13.

9.1.6 Bulletin

1. Ajay Kumar, Anurag Kumar, Anurag Ajay, Pankaj Kumar, Deepak Kumar Singh, Prabhat Kumar, Sugandha Munshi, Madhulika Singh, Ignatius Moben, S.P Poonia, Balwinder Singh, Virender Kumar, Anjani Kumar, Anil Kumar, Manoj Kumar, Sachin Sharma, S.K. Dubey, Attar Singh, RK. Sohane, Madhusudan Kundu, Prakashan Chellattan Veettil, Sudhanshu Singh, Peter Craufurd, and RK Malik (2022) Improving Wheat Productivity in the Eastern Indogangetic.Plain, https://www.researchgate.net/publication/357956754.CISA, Book chapter, p:1-20.

9.1.6 HRD by ATARI

1. Kisan Sarathi organised virtually by IASRI, New Delhi participated by 4 scientists and two technicals
2. "Effect of Nano Fertilizers on Growth and Yield of Wheat and Soil Properties" organised by Anand Agril. University, Anand, Gujrat participated by 4 scientists
3. Participation in two days Training Programme on Natural Farming, Haryana during 15-16th December 2022

9.1.7 Trainings by ATARI

1. Training programme on ''Plant Protection on pulses crops'' organized by ATARI Kanpur. Invited Dr. Krishna Kumar, VC, RPCAU Samastipur as Special guest/resource on 08.08.2022.
2. Organized three training programmes on CMS (Content Management System) for Programme Asstt (Computer) and Head of KVK at three different locations namely, SVPUAT, Meerut (on 24.11.2022), ICAR-ATARI Kanpur (on 16.12.2022) and NDUAT, Ayodhya (on 6.01.2023).

9.1.8 Workshops

1. Online Review workshop of ARYA Project on 16.02.2022
2. Virtual Review workshop of DAMU Project on 17.02.2022
3. KVK National Conference : Participation and management at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (HP) during 1-2 June, 2022.
4. Workshop on Planned Survey on Pulses in Rice based Cropping System on 26.06.2022
5. Organised 29th Annual Zonal Workshop of KVKs at SVPUAT, Meerut during 10-12 September, 2022
6. Review workshop of ARYA project organised virtually on 05.07.2022

9.1.9 Meetings (Virtual & Physical)

1. Online Review Meeting of KVKs of ANDUAT, Ayodhya on 18.01.2022
2. Virtual review meeting on DFI success stories on 27.01.2022
3. Meeting on Kisan Sarathi with DDGs, ADGs and ATARI Directors on 17.2.2022 organised by IASRI, New Delhi
4. Meeting of all ATARIs on DFI, Review workshops and budget utilization on 08.03.2022
5. ICAR-ATARI Kanpur Foundation Day Celebration on 19.03.2022
6. DG addressed by virtual on new year 04.01.2022
7. Virtual meeting with DDG-AE regarding DFI work 05.01.2022
8. Virtual review meeting with KVKs regarding expenditure and unspent balance 24.01.2022
9. Virtual meeting with DDG(AE) regarding 7th Pay arriar 28.01.2022
10. Virtual participation in KISAN SARTHI workshop 31.01.2022
11. Virtual participation in the meeting on KISAN SARTHI 17.02.2022
12. Virtual meeting organized for KVKs regarding DFI 03.02.2022
13. Virtual participation in RAC meeting 21.02.2022

14. Virtual participation in the webinar on budget implementation addressed by Hon'ble PM and AM 24.02.2022
15. Virtual meeting on CFLD 28.02.2022
16. Virtual meeting organized regarding DFI success stories of KVKs 10.03.2022
17. Participation in the programme on "Kisan Bhagidari - Prarthamikta Hamari" with all KVKs on 26.04.2022
18. Stakeholder Workshop : Planning the mechanism for Uttar Pradesh on 29.05.2022
19. Virtual review meeting of Dairy and Bee Keeping capacity building programme on 22.06.2022
20. Participation in SPARROW (Smart Performance Appraisal Report Recording online Window) programme on 19.04.2022.
21. Participation in Virtual meeting on promotion of Kisan Drones: Issues, Challenges & way forward on 02.05.2022
22. Paticipation in First International conference on SDG Interventions during 15th – 17th Apr 2022 at Chitrakoot.
23. Role of Integrated Pest Management (IPM) in "Doubling Farmers". Interaction Meet with Trainee in KVK Bareily on 21.04.2022
24. Participation in the workshop on ARYA Project at KVK Kaushambi.
25. Participation in National workshop on "Innovative Agriculture " on 25.11.2022
26. Paticipation in the "Managing Soil for Food and Climate Security and Advance SDGs of the UN" on 10.05.2022
27. Participation in AI and IOT: Enabling sustainable Digital Agriculture on 11.05.2022
28. Participation in 52nd Annual Group Meeting of All India Coordinated Research Project on Soybean held at Indore from 17-18 May 2022 through Hybrid Mode
29. Participation in Online Kharif Planning Meeting on 20.05.2022
30. Paticipation in National Symposium on Indian Agriculture after Independence on 24.05.2022
31. Participation in Review meeting of DFI by DDG (AE) on 08.06.2022
32. Virtual EFC meeting organised for Directors of Extension on 15.06.2022
33. Participation in Scientist Stakeholder Workshop on – Climate Smart Agriculture for sustainable Productivity in the Sodic Soils of Uttar Pradesh at ICAR CSSRI, Lucknow On 23.06.2022
34. Virtual Participation in QRT Recommendations meeting with Secretary DARE & DG ICAR and DDG (AE) on 24.06.2022
35. Participation in virtual meeting on action plan of ICAR for field demo. of Kisan Drone application on 05.07.2022
36. ATARI participated foundation day of ICAR virtually on 16.07.2022
37. Participation in NITI Ayog virtual meeting (Launching ceremony of MEGP) on 19.07.2022
38. Participation in virtual CSISA Meeting: Discussion of monitoring evaluation and learning under CSISA Project on 21 July 2022 under the chairmanship of DDG (AE)

39. NEMA online consultancy meeting of Co-PIs and CC-PIs of NEMA (Climate resilience) (attended by Dr. Sadhna Pandey (PS) on 28.07.2022)
40. Visit of QRT Member Dr Mathura Rai to ATARI Kanpur and meeting with Director and Scientists of ATARI Kanpur on 02.08.2022.
41. Virtual review meeting on CFLD Oilseed & Pulses (Hosted by ATARI Kanpur) on 04.08.2022
42. Meeting with Director Agriculture UP regarding implementation agency under RKVY Project at Lucknow on 05.08.2022.
43. ATARI organised virtual meeting on Gender & Nutrition Project – 2nd Phase discussion on 06.08.2022
44. ATARI organised virtual meeting regarding opening of Bank account in BoM under DAMU Project on 6.08.2022
45. Director ATARI virtually attended a lecture of Sri Narendra Singh Tomar, Hon'ble Agril. minister Azadi ka Amrit Mahotsav Lecture 75 topic Atma Nirbhar Krishi on 16.08.2022.
46. Director ATARI attended a meeting with Agril Min of UP in Lucknow during 17, 25 and 26 August, 2022
47. Participation in SAC meeting by Director ATARI at Kushinagar and Deoria during 15.09.2022 and 17.09.2022 respectively.
48. Participation in virtual meeting regarding data entry for FLD under KVK Portal organised by ICAR-IASRI, New Delhi on 16.09.2022
49. Participation in training programme on KISAN SARTHI organised by ICAR-IARI, New Delhi on 30.09.2022
50. Participation in Agri Conclave and Kisan Samman on 17.10.2022
51. Participation in National Workshop on Natural Farming at RVSKVV, Gwalior on 03.12.2022
52. Participation in Krishak Jagrukta Mela on Indian Natural Farming method and low rain fall based farming at Krishak Jagrukta Mela on Indian Natural Farming method and low rain fall based farming during 9-12 October, 2022.
53. Participation in International Conference on ”Reimagining Rainfed Agro-ecosystems-Challenges & Opportunities" at ICAR-CRIDA, Hyderabad during 22-24 December 2022.
54. Meeting Regarding Drone with DDG (AE) on 09.12.2022
55. Participation in Scientist and Farmer Interaction Programme at NICRA Village Birgua, KVK Jhansi on 11.12.2022
56. Meeting on Natural Farming and Skill Development Training Programmes with DDG(AE) on 13.12.2022
57. Celebration of International Year of Millets, 2023 on 15th December, 2022
58. Participation in the meeting under the Co. Chairmanship of Secretary (A&FW) and Secretary Seed Hub on 20.12.2022
59. Participation in the meeting of Hon'ble AM & Farmer Welfare, GoI, address to farmers of the country on the occasion of Kisan Samman Diwas on 23.12.2022.

60. Participation in Kishan Mela organized by KVK Etah at Bateshwar Dham on 25.12.2022
61. Participation in the meeting organized by Dr. Rajiv Bahl, Secretary, Department of Health Research and DG, ICMR on 28.12.2022
62. Virtual Review of budget organized for KVKs of ANDUAT, Ayodhya on 29.12.2022

9.2 PUBLICATIONS BY KVKs AND HRD BY DIRECTORATE OF EXTENSION

9.2.1 Publications By KVKs

S.No.	Category	Number	No. of KVKs
1	Books	43	35
2	Training Manual	205	60
3	Book Chapter	156	52
4	Abstracts	85	38
5	Research papers	235	53
6	Seminar Papers	314	73
7	Technical bulletins	2723	73
8	Technical reports	365	64
9	Proceedings	363	20
10	Others	14399	68
	Total	**18888**	**-**

9.2.2 HRD by Directorate of Extension

Name of SAU	Details of Programmes	No. of programmes organised	No. of Participants
BUAT, Banda	Skill Oriented training for KVK Staff	3	46
	Farmers Visit	5	149
CSAUAT, Kanpur	Recent Plant Protection measure in Agri-horticultral Crops for KVKs dated 28-29 March, 2022	1	22
	HRD Training Programme on Natural Farming: "Bhartiya Prakritik Krishi Padhatti for KVK Scientists" dated 26-27 May, 2022	1	30
	HRD Training for KVK Scieitist	1	36
	Training for Progressive Farmers and for Staff	1	45
ANDUAT, Ayodhya	Recent Advances in soil analysis & Nutrient Mananagement	1	35
	Animal based Integrated farming	1	27
	Natural farming	1	36
	Office management and PFMS	1	38
SVBPUAT, Meerut	Soil Health and Nutrient management	1	25
	Crop Production Technology	1	22
	Precsion Agriculture	1	24
	Orientation Program for new joined SMSs	2	48
	Total	**21**	**583**

Chapter-9

PROJECTS AND SPECIAL PROGRAMMES

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

(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 different modules of NICRA total 11733 farmers were benefitted. In this project, total 5408 demonstrations were made under three modules namely *NRM* (592), *Crop Production* (3669) and *Livestock & fisheries* (1147 demonstrations/3461 animals) by covering an area of 626.35 ha, 1346.10 & 69.15 respectively. Under *Capacity Building* module, total 179 training courses were conducted for 4417 farmers and under *Extension Activities* 187 programmes were organised by covering 7316 farmers.

Total 13 KVKs namely Kushinagar, Bahraich, Gorakhpur, Sonbhadra, Maharajganj, Gonda, Jhansi, Hamirpur, Chitrakoot, Muzafarnagar, Baghpat, Kaushambi, Pratapgarh are 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 : (1) No. of entrepreneurial units established: **568** (mushroom production-224, Fruits and vegetable processing units-1, Horticulture nursery-4, Poultry-141, Goat farming-112, Bee keeping-63, Vermicomposting-20); (2) No. of Training programs organised: 50; (3) No. of rural youth trained: 944; (4) No. of youth established units: 882.

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

(3) 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/shadder/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 200 awareness camps conducted and 20843 farmers were benefitted (ii) Total 128 training programmes organised and 2438 farmers were benefitted (iii) Total 5006 demonstrations conducted covering an area of 2874.00 ha (iv) Schools & colleges students mobilized through essay completion, painting, debate etc and 107 activities conducted by

participation of 15293 students. (v) Total 29 Kisan Meals organised and 11445 farmers are benefitted. (vi) Total 310 Column / Articles published in newspaper and magazines (vii) 211 Hording fixed at mandi/ road side/ market/ schools/ petrol pump/ panchayat etc, 7562 Poster/ Banner placed at different location/ buses etc. (viii) Total 166776 publicity material such as leaflets/ pamphlets etc. distributed (ix) Total 253 made awareness through TV & Radio (x) 50 exposure visit conducted by benefitting 2161 farmers (xii) total 49 field days organised by participating 2705 farmers (xiii) Total 213 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, Ghaziyabad, Hathras, Jaunpur, Mathura, Meerut, Moradabad, Muzaffarnagar, Pilibhit, Rampur, Saharanpur, Shahjahanpur, Varanasiare involved.

(4) 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 KVKs organised total 63 training programmes benefitting **743** participants on Agriculture Extension Service Provider, Agriculture Machinery Demonstrator, Animal Health Worker, Beekeeper, Broiler Farm Worker, Mushroom Grower, Nursery Worker, Organic Grower, Quality Seed Grower etc.

KVKs/ICAR Institutes involved: 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, Bijnour, 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, IGFRI, Jhansi, NBAIM, Mau, NBFGR, Lucknow, IVRI,Barielly are involved.

(5) 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 2022 total **4171.6** quintal pulse seeds (black gram 120.05 q, green gram 271.01 q, chickpea 755.74 q, field pea 2548.89 q and lentil 367.83 q) are produced by 8 seed hubs.

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

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

This scheme is being implemented 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: 52, Participants: 1695), (ii) Women Farmer Training (Courses: 28, Participants: 735), (iii) Rural youths (Courses: 12, Participants: 255), (iv) Extension Personnel (Courses: 4, participants: 112), (v) Involvement of farmers in (OFT: 42, FLD: 1398, mobile advisories: 1142), (vi) Participation in extension activities: 2206, (vii) Production of seed: 2182.50 q, (viii) Production of planting materials: 0.25 lakh, (ix) Production of Livestock strains: 142.02 lakh, Soil testing: 72

A total of 14 villages were adopted under KSHAMTA programme. Also 3613 farmers are benefitted by providing 70 training programmes and 583 demonstrations under this programme.

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

(7) SCSP (Scheduled 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 : 545 and 14364 beneficiaries
(ii) On farm trails: 578
(iii) Frontline demonstrations: 7921
(iv) Mobile advisories to the farmers: 118673
(v) Participants in extension activities: 59896
(vi) Production of seed: 999.01 q
(vii) Production of Planting material: 0.85 lakh
(viii) Production of fingerlings: 2.04 lakh
(ix) Testing of Soil, water, plant, manures samples: 2108

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

(8) 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 in participated mode and reduce the losses in agriculture with the help of agricultural scientists.

Technical achievements: During the year 2022 all the seven institute together conducted 6682 numbers of demonstration on 4313 livestock & poultry by covering 6213 families in the state of Uttar Pradesh. Total 1639 extension activities were also conducted which benefitted 3900 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.

(9) DAMU (Distt. Agrometeorology Unit)

Agro meteorology is an important multidisciplinary subject. Hence, KVKs maintains Agromet observatories as well as Automated Weather station (AWS) and record Agro met observations at their centre to generate agro meteorological information for use in studies on crops, pests and diseases, soil, agro forestry, livestock, horticulture, agriculture physics, soil science, etc. Such data will help to study crop-weather relationship, relationship between crop weather and pest/ disease and develop region/ location specific agro met predictive models. KVKs are involved to deliver crop and location specific AAS to farmers at block level.

Technical achievements: Under DAMU KVKs achievements are as follows –

- Number of Ago. Advisory services (AAS): 104

- Number of Farmer Awareness Programs (FAP) : 3
- Number of Trainings : 9
- Number of Bulletins : 624
- Number of Whatsapp Messages: 72
- Diagnostic Field visit : 28
- Number of Articles/News published in newspapers: 31

Total 20 KVKs namely Bhadoi, Kushinagar, Sonbhadra, Gorakhpur, Jaunpur, Azamgarh, Sidharthnagar, Balrampur, Chandauli, Kannauj, Fatehpur, Mainpuri, Bulandshahr, Shahjahanpur, Baghpat, Chitrakoot, Ghazipur, Lucknow, Agra, Etah are involoved in this DAMU project

(10) Natural farming

It is a diversified farming system that integrates crops, trees and livestock, allowing the optimum use of functional biodiversity. Natural Farming if done effectively enhances farmers' income while delivering many other benefits, such as restoration of soil fertility and environmental health, and mitigating and/or reducing greenhouse gas emissions. Natural Farming builds on natural or ecological processes that exist in or around farms. Keeping its needs & importance, this zone starts natural farming at 52 KVKs. In future 100% KVKs will be covered.

Technical achievements: Under Natural Farming KVKs achieved as follows –

- No. of awareness / training programmes organized: 262
- No. of Participants: 16185
- No. of demonstrations organized at farms of KVKs: 280
- No. of farmers visited demonstration plots: 16606

Following total 52 host wise KVKs are involved in Natural farming in the first phase –

i. **ANDUAT, Ayodhya (13):** Bahraich-I, Basti, Ballia, Mau, Varanasi, Siddharthnagar, Ayodhya, Sonbhadra, Azamgarh-I, Barabanki, Chandoli, St. Kabir Nagar, Amethi
ii. **BUAT, Banda (6):** Jhansi, Mahoba, Hamirpur, Jalaun, Lalitpur, Banda
iii. **CSAUT Kanpur (7):** Fatehpur, Aligarh, Kannauj, Etawah, Farrukhabad, Kasganj, Raibarely-II
iv. **SVPUAT, Meerut (9):** Bijnore, Budaun-I, Shahjahanpur, Meerut, Muzaffarnagar, Bulandshahr, Amroha, Hapur, Sambhal
v. **ICAR KVKs (5):** Bareilly, Lucknow, Kushinagar, St. Ravidas Nagar, Hardoi-II
vi. **NGO & other KVKs (12):** Sultanpur-I, Mirzapur, Gonda-I, Chitrakoot, Allahabad, Pratapgarh, Unnao, Ghazipur-I, Etah, Kaushambi, Sitapur-II, Gorakhpur-II

(11) IFS (Integrated Farming System)

Integrated Farming System (IFS) commonly refers to agricultural systems coupled or integrated with livestock, fisheries etc. and this is also referred to as integrated bio-systems. In this system, there exists an inter-relation between the different farming enterprises and it highly emphasises on waste management or resource management in such a way that the waste from one enterprise becomes an input for another enterprise. It was popularized in the State because of the fact that it is highly feasible for small and marginal farmers which prevails over 82% of the total farming population in Uttar Pradesh.

Technical achievements: IFS of different component combination were popularized through all the KVKs in Uttar Pradesh and there are 31 IFS units established spanning an area of 69.12 ha during 2022. Under IFS total 35 demonstrations and 45 trainings were conducted for 831 and 909 farmers respectively during 2022.

Total 13 KVKs namely Baghpat, Chandauli, Bulandshahar, Deoria, Ghaziabad, Ghazipur, Kushinagar, Lalitpur, Lucknow, Pilibhit, Varanasi, Fatehpur, Mirzapur are working on IFS.

(12) 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 (101)

(ii) Seed and Plant Distribution program: Seed Distribution (300.72 q), Planting material distributed (49814), Farmers benefitted (1098), Officer / Staff involved (54)

(iii) Animal husbandry & fish distribution programme: Medicine for control of parasite (226), Distribution of Mineral mixture (35), Farmers benefitted (615), Officers / Employees involved (55).

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

(13) 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.

- Establishment of one nutri - garden in each KVK and its maintenance throughout the year.
- Conducting training programmes by each KVK involving 100 Aganwadi workers.
- Preparation of nutrition map of the district in terms of location specific commodities grown and development of different nutri thali recipies 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: 276, Participants: 6371)
(ii) Extension programmes (Number 219, Participants: 8345)
(iii) Nutritional Garden units established: 1146 and 1870 farmer benefitted
(iv) Bio-fortified crops: 61 and 1473 farmers benefitted
(v) Value addition: 60 and 969 farmers were benefitted.

(14) 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-1637, PB-1718, PB-1692) 21 villages were selected from 11 blocks (3 districts). 121 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.

(15) 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 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	84	1840
2	Road, drain cleaning	244	4006
3	Garbage disposal	205	2124
4	Door to door awareness	183	3777
5	Awareness campaign	518	11326
6	Nookkad Drama	3	98
7	School Drama	8	763
8	School rally	39	2979
9	Writing paining slogans	44	858
10	Composting	126	1562
11	Kisan Mela/Diwas	1	518
12	Swachhta Kakhwada	30	341
13	Goshties	2	154
14	**Other**	100	3432
	Total	**1587**	**33778**

(16) 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-275, Number of village’s covered-346, Number of field activities conducted 290, Number of messages /Advisory send-435, Number of Farmers benefitted -2500.

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.

(17) Rainwater Harvesting Structures

Rainwater harvesting structures were developed at some KVK with the purpose that It provides water when a drought occurs, can help mitigate flooding of low-lying areas, and reduces demand on wells which may enable groundwater levels to be sustained. Rainwater harvesting increases the availability of water during dry seasons by increasing the levels of dried borewells and wells..

Technical Achievements: Under RHS different activities were conducted for farmers such as training programmes (17), demonstrations (324), visits of farmers (3268) and officials (86).

Total 35 KVK namely Agra, Aligarh, Amroha, Baghpat, Bijnor, Budaun, Bulandshahr, Chitrakoot, Etah, Fatehpur, Firozabad, GB Nagar, Ghaziabad, Hapur, Hathras, Jaunpur, Kannauj, Kanpur Nagar, Kasganj, Kaushambi, Mahoba, Mainpuri, Mathura, Meerut, Mirzapur, Moradabad, Muzaffarnagarn, Pratapgarh, Prayagraj, Rampur, Saharanpur, Sambhal, Sant Ravidas Nagar, Shamli, Varanasi are included in Jal Shakti Abhiyan and covering 139 blocks.

18) Drone Project

In order to boost and promote precision farming in India, the Union Ministry of Agriculture and Farmers Welfare has issued guidelines to make drone technology affordable to the stakeholders of this sector. The drones can help farmers increase production through prevention of environmental degradation; effective monitoring of crop health; getting insights into the soil health; planning irrigation and the proper use of available resources. The guidelines of "Sub-Mission on Agricultural Mechanization" (SMAM) have been amended which envisages granting upto 100% of the cost of agriculture drone or Rs. 10 lakhs whichever is less, as grant for purchase of drones by the Farm Machinery Training & Testing Institutes, ICAR institutes, KVKs and State Agriculture Universities for taking up large scale demonstrations of this technology on the farmers' fields. Keeping the view of its importance this zone initiated to use drones at KVKs/SAUs/ICAR Insitutes and promoting farmers to its use also.

Till now total 32 drones are sanctioned in this zone.

Technical achievements: As the process of purchasing is going on, this zone is working on the points such as – (i) no. of kisan drones purchased by PIC (6) (ii) area (ha) and its demonstrations by kisan drone(1500 ha), (iii) no. of farmers participated (6000).

In the initial phase following 10 KVKs, 4 SAUs and 11 ICAR institutes are included in the drone project.

- 10 KVKs (Bijnor, Shamili, Bahraich-I, Lucknow, Bareilly, Agra, Sitapur-II, Lalitpur, Chitrakoot & Mirzapur)
- 4 SAUs (SVPUAT, Meerut, ANDUAT, Ayodhya, CSAUAT, Kanpur, RLBCAU, Jhansi)
- 11 ICAR Institutes (IISR, Lucknow; IVRI, Bareilly; IGFRI, Jhansi; IIPR, Kanpur; IISS, Mau; NBFGR, Lucknow, CISH, Lucknow; IIVR, Varanasi; IIFSR, Meerut; CARI, Jhansi and CIRG, Mathura)

Chapter-10

WOMEN EMPWERMENT IN AGRICULTURE

10.1 Introduction

Women empowerment refers to increasing the spiritual, political, social, educational and economic strength of communities of women. Women's empowerment in India is heavily dependent on many different variables that include geographical location (urban / rural) educational status, social status (caste and class) and age. Empowerment of women is essentially the process of upliftment of economic, social and political status of women, the traditionally underprivileged ones, in the society. It is the process of guarding them against all forms of violence. Women empowerment involves the building up of a society, a political environment, wherein women can breathe without the fear of oppression, exploitation, apprehension, discrimination and the general feeling of persecution which goes with being a woman in a traditionally male dominated structure. Policies on Women's empowerment exist at the national, state and local (Panchayat) levels in many sectors. Although there is significant gap between policy advancements and actual practice at the community level.

Women constitute almost 50% of the world's population. As far as their social status is concerned, they are not treated as equal to men in all the places. In the Western societies, the women have got equal right and status with men in all walks of life. But in India gender disabilities and discriminations are found even today. The economic empowerment of women is very important as they can play vital role in economic development of the country. But before empowering women, it is important to maintain the health status of farm women and reduces malnutrition among women.

In Uttar Pradesh, network of 89 KVKs are actively involved in organising various trainings, frontline demonstration, and on farm trials to empower women farmers, rural girls and women extension personnel with knowledge and skills related to latest technologies of agriculture, home science and other allied area. So that they can contribute equally with their male counterparts. Various programmes are being organised to maintain the nutrition and health status of farm women, reduce the drudgery and addressing malnutrition.

10.2 Capacity Development

A total of 7210 trainings courses were conducted to update the knowledge and enhance skills of farm women, rural girls and women extension functionaries of Uttar Pradesh with the participation of 42375 farm women (Table 1.1). Maximum courses (1533) and women participants (4859) were related to crop production. The other areas of trainings were horticulture (1232 courses and 4139 participants); livestock production management (837 courses and 3419 participants); women empowerment (943 courses and 20054 participants); soil health and fertility management (691 courses and 2651 participants); agricultural engineering (253 courses and 716 participants); plant protection (780 courses and 2359 participants); fisheries (163 courses and 594 participants); production of input at site (336 courses and 1579 participants); capacity building & group dynamics (369 courses and 1693 participants); agro forestry (94 courses and 312 participants).

10.2.1 Farm women

A total of 943 courses were organized to empower farm women with the participation of **20054** farm women. The highest number of farm women attended the 188 courses on Household food security by kitchen gardening followed by 141 courses on value addition with participation of 3041 participants, 116 courses on women and child care with 2657 farm women. The farm women also showed interest in courses like storage losses (45 courses with 960 participants) , gender mainstreaming through SHGs (32 courses with 771 participants), processing & cooking (41 courses with 852 participants), rural craft (28 courses with 635 participants), developing high nutrient efficient diet (86 courses with 1689 participants), drudgery reduction (48 courses with 1039 participants), diet related courses (55 courses with 1267 participants) etc.

10.2.2 Rural Girls

Total of 1054 courses related to rural girls were organized with the participation of 5264 rural girls. The highest participation was attracted towards the programmes like seed production (119 courses with 360 participants), mushroom production ((94 courses with 472 participants), value addition ((85 courses with 1134 participants), training and pruning of orchards (87 courses with 591participants), nursery management of horticultural crops (68 courses with 219 participants), vermi culture (41 courses with 126 participants) and organic inputs production (65 courses with 188 participants). Other courses viz protected cultivation (25 courses with 68 participants); commercial fruit production (14 courses with 20 participants), planting material production (24 courses with 75 participants), bee keeping (59 courses with 90 participants), rural crafts (21 courses with 310 participants), dairying (53 courses with 187 participants), poultry (33 courses with 94 participants), etc were preferred by the youth. Similarly, livestock and fisheries (56 courses with 188 participants), crop production (54 courses with 245 participants) and management and post harvest management (17 courses with 125 participants) related programmes were also organized.

10.2.3 Women Extension Personnel

A total of 867 courses were organized with participation of 3618 women extension personnel by the KVKs. Major areas in which women extension personnel were trained were productivity enhancement in field crops (150 participants), integrated pest management (157 participants), INM (221 partipants), production of organic inputs (114 participants), livestock feed & fodder (149 participants), women & child care (948 participants) etc.

10.3 Technology Assessment under women empowerment

10.3.1 Assessment of Groundnut Decorticator for enhancing work efficiency and reducing drudgery of Farm Women involved in de husking of groundnut

KVK Hamirpur conducted on farm trial to assess efficiency groundnut decorticator for enhancing work efficiency and reducing drudgery of Farm Women involved in de husking of groundnut. The assessed technology increased groundnut dehusk 18.2 kg/ hr/ person over traditional method (2.0 kg/ hr/ person). The average working heart rate observed in traditional and improved method is 98.79 beats/min and 101.50 / min respectively. With the use of groundnut decorticator 9 labour has been saved as compared to traditional method. Good working posture with Groundnut Decorticator helped in reduced drudgery and

enhancement in efficiency. Farm women feel maximum drudgery during traditional method because figure involvement is more due to monotony in performance, continuous sitting for a longer period of time.



Height measurement of Farm Women



Drudgery reduction through Groundnut Decorticator

10.3.23 Assessment of hanging Sieve for wheat to reduce drudgery and efficiency enhancement of farm women

There is a 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. KVK Muzaffarnagar conducted on farm trial to assess drudgery reduction and efficiency enhancement of farm women involved in postharvest activities of wheat production threshing and winnowing.

Results revealed that by use of hanging sieve cleaning of wheat (123 kg/hr) increased by 24.1 % over traditional practice (58 kg /hr), 1.8 times less energy expenditure and 17 % less heart beat after one hour cleaning of wheat. Women farmer showed their interest and willingness for adopting this technology. 100 percent Women liked hanging sieve over hand sieve,as maximum work output was observed by using the hanging grain cleaner.



Farmers Practice



Improved Practice

10.3.5 Improvement of Hemoglobin level through value added jaggery products

KVK Fatehpur conducted on farm trial to assess the improvement of nutritional status of farm women through mprovement of Hemoglobin level through value added jaggery products. In respect to sensory evaluation (color, texture, aroma, appearance, palatability) fortification of groundnut chikki (30 gram ground nut + 70 gram jiggery) was found better than Mixed Atta Laddo (30 gram wheat floor + 20 gram bazara + 20 gram aonla flakes + 30 gram jiggery). In respect to increase haemoglobin level recorded after 90 days and 180 days of consumption of Ground nut chikki (30 gram ground nut + 70 gram jiggery), average increase in haemoglobin level of adolescent girls observed 1.5% to 2 %..

Technology assessed/Refined	Result
T_1 – Traditional practice Not extra consumption of iron in daily diet	Poor haemoglobin level
T_2- Ground nut chikki (30 gram ground nut + 70 gram jaggery)	Better haemoglobin level of adolescent girls
T_3- Mixed Atta Laddo (30 gram wheat floor + 20 gram bazara + 20 gram aonla flakes + 30 gram jiggery)	Improvement of haemoglobin level

Nutritive value of Prepared recipe (By calculation method C-Gopalan)

Recipe(Per 100 gm)	Protein(gm)	Energy(kcal)	Iron(mg)
Groundnut Chikki	8.14	368	2.96
Mixed atta laddo	6.22	296	2.80






10.3.6 Assessment of the effectiveness of bio-fortified wheat flour for improvement of nutritional status of Farm Women

KVK Hamirpur conducted on farm trial to assess the improvement of nutritional status of farm women through bio fortified Wheat flour (75%) + Gram Flour (20%) + Barley Flour (5%) for 180 days (Protein 14-15%, Iron 2.0-2.4 mg/100gm). The analysis of data revealed that supplementation of Fortified wheat flour which consist Protein 15-16.5 gm/100gm, Iron 4.0 – 4.2 mg/100 gm. Where as in farmer's practice consumed (according to ICMR 350gm cereals/person/ day) only wheat flour consist Protein 13.7 gm/100gm, Iron 3.6 mg/100 gm. The Trial was started in sep. 2022 in 5 farmwomen having age group 18-40 years and provides moringa leaf power to each family. . It was found that consumption of Fortified wheat flour till 120 days increased BMI 6.55% as well as Haemoglobin level 14.46 %. The Farm Women also appreciated the appearance and taste of the fortified wheat flour with moringa leaf powder. Farm women also replied that rate of exertion also reduce during activities after intervention of technology.

Evaluation of the effective supplementation of fortified wheat flour for improvement of nutritional status of Farm Women

Composition on multigrain Atta	Require-ment gm/day	Nutritional Value full filled								Impact on Health status			
		Energy (Kcal)	Protein (gm)	Fat (gm	CHO (gm)	Fiber (gm)	Ca (mg	P (mg)	Iron (mg)	BMI kg/m^2	% Increased	Haemoglobin gm/Dl	% Increased
Only wheat flour	350	1190	47.95	6.54	252	42.7	119.0	1270	12.6	21.82	-	9.05	-
Wheat 95%	332.5	1130.5	45.55	6.21	239.4	40.5	113.0	1206	11.97	22.28	6.5	10.5	14.4
Moringa leaf powder	17.5	65.62	3.5	0.0	8.75	4.37	437.5	262.5	21.0				
Total 100%	350	1196.1	49.05	6.21	248.1	44.9	550.5	1469	32.97				



T_1 - Farmer's Practice

T_2 - Mixed Grain fortified with Moringa



10.4 Kitchen Gardening

Real partners of the aspirational villages have adopted the latest technolgies imparted during training programmes like establishment of Nadep / Vermi Unit , Plantation of fruit plants i.e. mango, guava, aonla, lemon and bel at proper spacing , cultivated kharif vegetables i.e. Lady finger, var- VU, Chillies Var-PJ, Capcicum Var- CW. Tinda Var – Ludhiyana, Onion Var – AFDR, Dolichos Var- PEP seeds which were provided by Natinal seed corporation through Department of Hortculture Fatehpurto 100 farmers in each village. Faremrs are in the process for establishing kitchen garden , bee keeping units and mushroom cultivation units for enhancement of income on regular basis.

As the farmers of the aspirational village were provided green gram seed kit var-MH-421/ Pant-5 and Til Var- 351/IT 346 the crops in the farmers fields are in good position , Farmers have got seed replacement through theses varieties









10.5 Success Stories

10.5.1 Success Story of Governor Awardee Women Farmer



Mushroom Production	**A Remunerative & Employment Generation Occupation**
Name	Smt. Krishnawati
Husband name	Lt. Sri Ram Lal
Address	Vill: Nagpur,Post Etwa Kungai, Block Harraiya Distt.- Basti
Age	48 yrs.
Education	5th standard
Land holding	0.01 ha

Smt. Krishnawati is a very poor and landless women farmer. She never walk out in front of challenges. She has seven members in her family. She started Button Mushroom Production from one shed (50x22 sq.ft.) by local material bamboo, wheat and paddy straw etc. The Total input cost is Rs. 85,000.







Training and motivational support: She decided to visit to Krishi Vigyan Kendra, Basti. During informal talk and interaction with scientific staff, they advice her to attend training of Button Mushroom cultivation at the KVK in year 2013- 14 after the training she started Button Mushroom Production from 1 shed.

Impact in the area: Status of entrepreneur before and after KVK Intervention

Before Intervention	After Intervention
1. 01 shed	06 sheds
2. 0.2 acre land	0.50 acre land purchased
3. Income Rs. 72,000 only annually	Income Rs. 8,00,000 only annually
4. Thatched house	house with motor cycle, TV, mobile, Pakka house

Horizontal spread of units: 150 farm families are engaged with 500-600 rural youths engaged and Other transport agencies and business man and entrepreneur involves in the mushroom Production system.

Awards & recognitions: She received many times University, ICAR and Governor Awards. Hon'ble Governor, U.P. also provided Rs. 1.0 lac as reward for her best performance in mushroom production for district Basti. Kendra also promotes her for excellent performance of her mushroom unit

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मशरूम उत्पादक का हुआ सम्मान

कृष्णावती को राज्यपाल ने किया सम्मानित

राज्यपाल ने महिला किसान को सम्मानित किया। संवाद न्यूज एजेंसी

संवाद न्यूज एजेंसी

हरैया। आचार्य नरेंद्र देव कृषि एवं प्रौद्योगिक विश्वविद्यालय कुमारगंज, अयोध्या के 22वें दीक्षांत समारोह में जिले की कृष्णावती को भी सम्मानित किया गया। उन्हें यह सम्मान मशरूम उत्पादन के लिए दिया गया।

नरेंद्र देव कृषि विश्वविद्यालय के दीक्षांत समारोह में मिला सम्मान

उत्पादन का हब बन चुका है। इस क्षेत्र के करीब 165 परिवार इस उत्पादन में लगे हुए हैं। कृष्णावती को राज्यपाल आनंदीबेन पटेल ने







10.5.2 Success Story of Governor Awardee Women Farmer



Name and address: Smt. Anjani Singh w/o Pradeep Singh

Vill. & Post- Katya**, Block-** Basti-Sadar**, Distt.-** Basti.

Mob. No.- 8948091489

Category: Agriculture/Animal husbandry/ value addition/ women empowerment/ social sciences.

Background She is having 8.00 acre land & growing Wheat, Paddy, Sugercane, Til, Urad & Vegetables. She is having 3 cow & 3 buffalos. In spite of these she is participating in many food processing operations like packaging, storage & spending considerable time in household activities & management of animals.

Training and motivational support KVK Basti provided her training in the field of Fruit & vegetable preservation, stitching of the garments knitting, care of milching animals. She is selling milk & khoya. At the present she is running 8 self help group & acting as "SAMUH SAKHI". She is selling her products under the umbrella of "DURGA AJIVIKA SELF HELP GROUP" & earning Rs. 20,000/Month.

Impact in the area After getting self satisfaction from earning money. She attracted more number of rural women for employment in the field of value & Animal Husbandry.

Awards & recognitions She has been awarded by two certificates by Uttar Pradesh Gramin Ajivika Mission on 16-10-2020 & 29-11-2020 for her good work.





Contributing/enabling Factors She is working as Samuh Sakhi of all these 8 self help Group- Durga Ajivika, Kali Ajivika, Jai Mata, Laxmi, Shankar, Naitik, Ujjwala, Jyoti. To see her work more than 10 rural women adopted the business of value addition and purchase the milking animals for selling of milk.





Chapter-11

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 (87), Two wheeler (70), 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	CU BHU	NGO/ Other KVKs	
		NDUAT, Ayodhya	BUAT, Banda	CSAUAT, Kanpur	DUVASU, Mathura	SVPUAT, Meerut				
		(25)	(7)	(15)	(1)	(20)	(7)	(1)	(13)	
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	25	7	13	1	20	7	1	13	**87**
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 11 staff personnel out of total 20 vacancies. Post of RMP is filled. Out of 6 sanctioned positions in scientific cadre, 2 positions (1 Sr. Scientist and 1 Scientist) are filled up. 1 Principal Scientist, 2 Sr. Scientist 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	Sanctioned	Filled	Vacant	Subject/Discipline
1	RMP	1	1	0	-
2	Principal Scientist	1	0	1	Agril. Extension
3	Sr. Scientist	3	1	2	Agril. Extension & Agronomy
4	Scientist	2	1	1	LPM
5	Technical	2	2	0	-
6	Administrative	9	5	4	AF&AO-1, LDC-1, PS-1, Steno-1
7	Supporting	2	1	1	SSS-1
	Total	**20**	**11**	**9**	**-**

Table 12.2.2: Details of ICAR-ATARI, Kanpur staff

Category	Name of employee with designation
RMP	1. Dr. Shantanu Kumar Dubey, Principal Scientist (Agril. Extn.)
Scientific Staff	1. Dr. Sadhna Pandey, Principal Scientist (H. Sci. Extn.) 2. Dr. Raghwendra 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 987 posts including Head (56), Subject Matter Specialists (429), Programme Asstt. (150), Administrative (118), Auxiliary (123), Supporting (111). Filled positions are 69.31 % and vacant post lying as 30.69 %. 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	56	33
Subject Matter Specialists	534	429	105
Programme Asstt	267	150	117
Administrative	178	118	60
Auxiliary	178	123	55
Supporting	178	111	67
Total	**1424**	**987**	**437**
Total % filled		**69.31 %**	**30.69 %**

12.4 STATUS OF BUDGET

During the financial year 2021-22, an amount of Rs. 19197.43 lakh was utilized/released against the allotted budget of Rs. 19199.31 lakh.

Table 12.4.1: Head wise allocation funds for ICAR-ATARI, Kanpur and KVKs of U.P. for 2021-22

(Rs in lakh)

S. No.	Heads	ATARI	KVK	DE	Total
A	**Revenue**				
i)	Pay & Allowances	231.71	16120.82	0.00	**16352.53**
ii)	Pension	9.00	0.00	0.00	**9.00**
iii)	T.A.	1.10	90.48	3.75	**95.33**
iv)	H.R.D.	0.17	16.71	4.50	**21.38**
v)	Contingency	61.95	607.07	24.75	**693.77**
	Total (A)	**303.93**	**16835.08**	**33.00**	**17172.01**
B	**Capital**				
i)	Furniture/Equipment	0.00	22.10	0.00	**22.10**
ii)	Works	0.00	516.20	0.00	**516.20**
iii)	Library	0.00	0.00	0.00	**0.00**
iv)	Vehicle	0.00	96.00	0.00	**96.00**
	Total (B)	**0.00**	**634.30**	**0.00**	**634.30**
C	Revolving Fund	0.00	3.00	0.00	3.00
D	TSP - Capital	0.00	173.00	0.00	173.00
	TSP - General	0.00	213.00	0.00	213.00
	Total (D)	**0.00**	**386.00**	**0.00**	**386.00**
E	SCSP - Capital	0.00	384.00	0.00	384.00
	SCSP - General	0.00	620.00	0.00	620.00
	Total (E)	**0.00**	**1004.00**	**0.00**	**1004.00**
	Total (A+B+C+D+E)	**303.93**	**18862.38**	**33.00**	**19199.31**

Table 12.4.2: Actual Expenditure/Release for 2021-22

(Rs in lakh)

S. No.	Heads	ATARI	KVK	DE	Total
A	**Revenue**				
i)	Pay & Allowances	231.69	16120.82	0.00	**16352.51**
ii)	Pension	8.65	0.00	0.00	**8.65**
iii)	T.A.	1.07	90.48	3.75	**95.30**
iv)	H.R.D.	0.17	16.71	4.50	**21.38**
v)	Contingency	60.47	607.07	24.75	**692.29**
	Total (A)	**302.05**	**16835.08**	**33.00**	**17170.13**
B	**Capital**				
i)	Furniture/Equipment	0.00	22.10	0.00	22.10
ii)	Works	0.00	516.20	0.00	516.20
iii)	Library	0.00	0.00	0.00	0.00
iv)	Vehicle	0.00	96.00	0.00	96.00
	Total (B)	**0.00**	**634.30**	**0.00**	**634.30**
C	Revolving Fund	0.00	3.00	0.00	3.00
D	TSP - Capital	0.00	173.00	0.00	173.00
	TSP - General	0.00	213.00	0.00	213.00
	Total (D)	**0.00**	**386.00**	**0.00**	**386.00**
E	SCSP - Capital	0.00	384.00	0.00	384.00
	SCSP - General	0.00	620.00	0.00	620.00
	Total (E)	**0.00**	**1004.00**	**0.00**	**1004.00**
	Total (A+B+C+D+E)	**302.05**	**18862.38**	**33.00**	**19197.43**

Chapter-12

ATARI EVENTS & PARTICIPATION

During the year 2022, ICAR-ATARI, Kanpur organised following important events which includes both virtual and physical mode.

Virtual review meeting on DFI success stories

Online meeting regarding Correction in DFI Success Stories was held on 27.01.2022 with the Director of Extension of CSAUAT Kanpur, BUAT Banda, SVPUAT Meerut and ANDUAT Ayodhya under the Chairmanship of Dr. U.S. Gautam, Director, ICARATARI, Kanpur.



Online Review workshop of ARYA Project

Online Review workshop of ARYA (Attracting Rural Youth in Agriculture) project was held on 16.02.2022 under the chairmanship of Dr. U.S. Gautam, Director, ICAR-ATARI, Kanpur. Following KVK Muzaffarnagar, Varanasi, Gorakhpur, Kaushambi, Pratapgarh, Saharanpur, Deoria, Basti, Ghazipur& Lucknow participated in this review workshop.

Virtual Review workshop of DAMU Project

Online Review meeting of DAMU Project was organized under the chairmanship of Dr. U.S. Gautam, Director, ICAR-ATARI, Kanpur on 17th February 2022 to review progress from January 2021 to December 2021.

Dr. K K Singh (Head AASD IMD New Delhi), Dr. A. K Singh (Director Extension CSAUA&T Kanpur), Dr. Kripan Ghosh (Scientist E IMD Pune), Dr. Atar Singh, Dr. Raghvendra Singh were present in the meeting.

Meeting on Kisan Sarathi with DDGs, ADGs and ATARI Directors

This is meeting on 17.2.2022 organised by IASRI with the hope that the Kisan Sarathi Portal will start functioning from 1st April, 2022.

It is decided that first it is necessary to start portal as Knowledge Portal. Working will be made with the collaborative model with ICAR Institute expert and KVK Expert. Whatever queries arises by farmers first should go to Expert of ICAR through KVK Expert then whatever reply or answer comes should go to Dashboard of KVK.

In this meeting, DDG(AE), ADG(ICT), ADG(AE), ATARI Directors, Sanjay Garg, T.S. Anurag, DIC, Sanjeev, ICAR-IASRI, Dr. Rajander Pradad, Mukesh Kumar and some senior colleagues of IASRI were participated





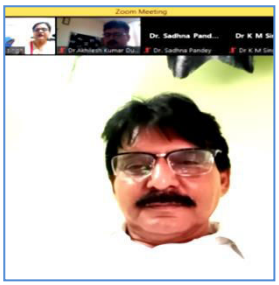
Meeting of all ATARIs on DFI, Review workshops and budget utilization

An online meeting of all ATARIs was held 08.03.2022 under the chairmanship of Dr. AK Singh DDG (AE) ICAR, New Delhi. In the meeting Doubling Farmers' Income and other issues like upcoming Review workshops and budget utilization were also discussed. Directors and Principal Scientists of ATARIs participated

ICAR-ATARI Kanpur Foundation Day Celebration

Foundation day of ICAR-ATARI Kanpur was celebrated on 19th March 2022. On this occasion all staff of ICAR-ATARI Kanpur were present and Heads of KVKs and DEs of SAUs connected virtual to program through online mode. Dr Atar Singh, PS (Agron.) presented a brief achievement of ICAR-ATARI, Kanpur. Director ICAR-ATARI, Dr. U.S. Gautam also point out the achievements of KVKs and its improvement.





NICRA Project workshop

One day workshop on NICRA project was organised on 21.03.2022 at ICAR-ATARI, Kanpur. This workshop was inaugurated by Dr. Vinod Kumar Singh, Director, CRIDA, Hyderabad. Special Guest Dr. JVNS Prasad, Coordinator NICRA, Dr. I. Srinivas, PS, CRIDA, Hyderabad, Dr. D.P. Patel, PS, IIPR, Kanpur and Dr. Avanish Kumar, PS, IARI, New Delhi also present on this occasion.

Purpose of this workshop is to discuss impact of climate change on agriculture and to promote agricultural technology. Also to review progress of NICRA KVKs and Action Plan.



Stakeholder Workshop : Planning the mechanism for Uttar Pradesh

One day statkeholder workshop on planning the mechanism for Uttar Pradesh was organised at ICAR ATARI Kanpur in the chairmanship of ATARI Director Dr. U.S.Gautam on 29.05.2022. Mr. Vivek Kumar Singh, Director Agriculture, Department of Agriculture took part as the Chief Guest. This meeting was organised both by physical and virtual

KVK National Conference : Participation and management

Two days XIIth Biennial National KVK Conference has been organized at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan (HP) during 1-2 June, 2022.

On the dice Hon'ble Governor of Gujarat, Shri Acharya Devvrat, Chief Minister of Himachal Pradesh Shri Jai Ram Thakur, Minister of State for Agriculture & Farmers Welfare Shri Kailash Chaudhary, Secretary DARE and DG ICAR Dr Trilochan Mahopatra, DDG(AE) Dr A.K. Singh, Vice Chancellor of Dr YS Parmar University of Horticulture and Forestry Dr Rajeshwar Singh Chandel were present. Hon'ble AM Shri Narendra Singh Tomar attended this conference via virtual mode.



Organisation of programme on "Kisan Bhagidari - Prarthamikta Hamari"

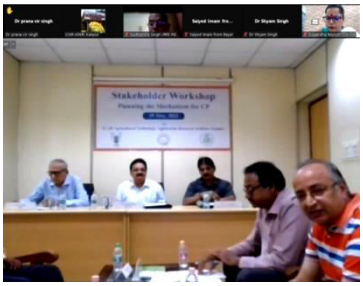
The inaugural programme on "*Kisan Bhagidari - Prarthamikta Hamari"* has been organised by 89 KVKs of Uttar Pradesh on 26.04.2022.

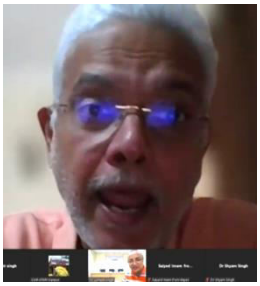
This programme was inaugurated by Hon'ble Minister of Agriculture and Farmers' Welfare in virtual mode. Every KVK joined the inaugural session along with farmers.





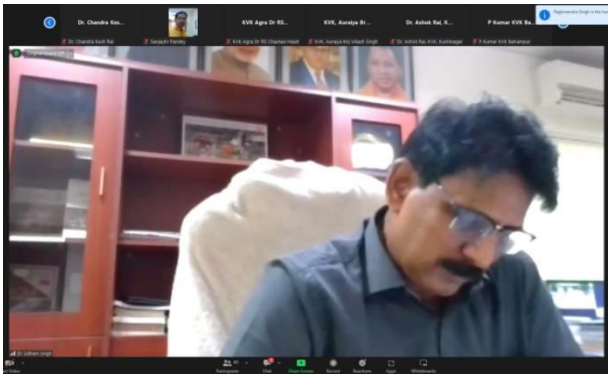
mode. Dr. Sudhanshu Singh (IRRI IN), Dr. Pranavir Singh, Dr A.K. Singh, DE CSAUAT, Kanpur, Dr Sugandha Munshi (CO IN) etc attended virtually.





Virtual review meeting of Dairy and Bee Keeping capacity building programme

A virtual review meeting on capacity development for Dairy and Bee Keeping was conducted by ICAR-ATARI Kanpur on 22.06.2022. Total 63 Heads/SMSs and ATARI officials were participated in this meeting.



Participation of ATARI in Virtual meeting on promotion of Kisan Drones: Issues, Challenges & way forward

ICAR organised virtual programme on promotion of Kisan Drones at Pusa complex, New Delhi on 02.05.2022. All Scientist and CTO have participated this important programme. Actually Government of India promoted Kisan Drones among all KVKs through out the country. In Uttar Pradesh 25 Centres (KVKs, ICAR institutes and SAUs) has been identified for Drone Demonstration.



Visit of Ex Director (AE), New Delhi Shri Kanhaiya Chaudhary

ICAR-ATARI, Kanpur welcomed Shri Kanhaiya Chaudhary, Ex Director (AE), New Delhi on 5 April, 2022. On his visit Shri Chaudhary shared his experiences in Administration, Finance and other legal matters.



ATARI attended SPRROW programme

All staff of ICAR-ATARI, Kanpur attended the training programme on SPARROW (Smart Performance Appraisal Report Recording online window) on 19.04.2022. This virtual programme was organised by ICT Unit of ICAR. Shri Sanjay Garg and Dr Anil Rai, ADG said that initially all the staff of ICAR excluding scientist needs to enter Appraisal report online, further reporting and reviewing will be made by respective seniors. This is the part of e-office.

Celebration of International Yoga Day

ICAR-ATARI, Kanpur organised International Day of Yoga on 21.06.2022 under "Azadi Ka Amrit Mahotsav". In this programme total of 25 staff attended early in the morning @ 6:30 AM and did different yoga aasanas in presence of Expert Yoga Guru. Asanas like Padmasan, Halasan, Trikonasan, Rikshasan, Tadasan, Shavasan, Naukasan, Bhujangasan etc has been experienced by all participants. All KVKs also celebrated this event





ICAR ATARI Kanpur organised 29th Annual Zonal Workshop of KVKs

ICAR ATARI, Kanpur organized 29th Annual Zonal Workshop of KVKs during 10-12 September, 2022 at SVPUAT, Meerut. On the first day of workshop, scientists from all 89 Krishi Vigyan Kendras of Uttar Pradesh participated in the inauguration function of workshop. The Chief Guest of the workshop, Shri Surya Pratap Shahi ji, Hon'ble Minister (Agriculture, Agricultural Research & Education), Uttar Pradesh inaugurated the workshop and released the publications and also gave away awards to innovative farmers and other participants.



Guest of Honour Dr. Himanshu Pathak, Secretary DARE & DG, ICAR said that India has made unprecedented progress in agriculture in the last 75 years



Dr U.S Gautam introduced and welcomed all dignitaries present on the stage post which Dr. Gautam requested ACS to adopt promotion schemes, NPS and other facilities of ICAR for KVK employees including filling of the non-teaching/ supporting staff positions vacant in KVKs. He also requested some budget from U.P. government to develop some technologies like happy seeder, seed drill and other equipment. He also added that out of 75000 DFI stories around 7500 are from Uttar Pradesh. In Uttar Pradesh 52 KVKs are working on Natural farming and allot the budget of 4.25 lakh for each KVK. KVKs are working at different levels with other line departments to work for farmer's welfare and well being. NAAM farmer app has been implemented for marketing of crops working in PPP mode.









Dr. Devesh Chaturvedi, IAS/ACS appreciated the workshop "Innovator Farmers" and kept Agriculture Education at Number 2 after Medical education in all the streams of education. There should also be focus on vocal for local in agricultural sectors. Diversification into pulses and oilseed has increased the production and good quality seeds. In the view of malnutrition, the production of millets will also have to be increased.

हिंदी पखवाड़ा का उत्सव

भाकृअनुप अटारी कानपुर ने 1 से 15 सितंबर, 2022 के दौरान हिंदी पखवाड़ा मनाया। प्रथम दिन के अवसर पर निदेशक डॉ यू.एस. गौतम ने कहा कि हिंदी भाषा को देश के हर क्षेत्र में बढ़ावा देने की जरूरत है। इस दिन को डॉ. राजेंद्र सिंह जयंती के रूप में भी मनाया जाता है, जिन्होंने हिंदी भाषा को राष्ट्रभाषा बनाने के लिए अथक प्रयास किए। हिंदी भाषा सबसे पुरानी भाषाओं में से एक है जो देवनागरी लिपि में लिखी गई संस्कृत भाषा से अपनी अधिकांश शैक्षणिक शब्दावली प्राप्त करती है।



Monitoring of KVK Meerut & Bullandshar

ATARI officials Dr. Shantanu Kumar Dubey, PS(AE) and Dr. Raghwendra Singh, PS(Hort.) and Mr. S.N. Yemul, CTO visited KVK Bullandshahar on 1.9.2022 and KVK Meerut on 03.9.2022.

On 01.09.2022 officials reviewed all activities of KVKs including short meeting of all staff and field visit. On 03.09.2022, officials also made visit to KVK Meerut. Each scientist of KVK expressed their work and achievements. Officials of ATARI also reviewed various units like Soil laboratory, Home science unit, Plant protection, Vermin compost unit, Cattle unit, fishery unit, field of Natural farming and Jaggery unit.





Agri Startup Conclave & Kisan Sammelan

Prime Minister Shri Narendra Modi inaugurated a two-day event titled *"Agri Startup Conclave & PM Kisan Samman Sammelan 2022"* on 17th October 2022 at Mela Ground, IARI, Pusa, New Delhi. On this occasion, Shri Modi released Rs. 16,000 Crores under the PM-KISAN flagship scheme as 12th installment through Direct Benefit Transfer. Prime Minister also inaugurated the Agri Start-up Conclave and Exhibition. He also inaugurated 600 PM Kisan Samruddhi Kendras (PM-KSK) of Union Ministry of Chemicals & Fertilizers and will launch Bharat Urea Bags, India's biggest move in fertilizers-One Nation One Fertilizer Scheme for Farmers.



Dr. Shantanu Kumar Dubey, PS (AE) and S.N. Yemul, CTO participated in this programme. From Zone.III (Uttar Pradesh) total 4050 farmers were registered for their participation. Over 15000 farmers throughout the country atteded this even physically





Participation in National Workshop on Natural Farming at RVSKVV, Gwalior



National workshop on Natural farming was organized by RVSKVV Gwalior on 3rd December 2022. In this workshop around 425 Scientists and Subject Matter Specialists of KVKs participated. The Chief Guests of the workshop were Shri Narendra Singh Tomar, Honble Central Agriculture Minister, Dr. S.R.K. Singh, Director, ICAR-ATARI Jabalpur, Dr. Keshwa, Principal Scientist, ICAR, Dr. Arvind Kumar Shukla, VC RVSKVV, Gwalior, Dr. Ved Prakash Chahal, ADG (AE), ICAR, New Delhi.

Two days Training Programme on Natural Farming, Haryana



Two-Days orientation cum training programme on Natural Farming was organized by Natural farming Institute, Gurukul, Kurukshetra, Haryana on 15-16th December 2022.

Training programmes organized on CMS (Content Management System)

All the KVKs of Zone-III are conducting and organizing their mandated activities as per schedule programmes. Content of these activites needs to upload on respective KVK website time to time. For the purpose ICAR-ATARI, Kanpur planned to organize the training programmes on CMS (Content Management System) for Programme Asstt at three different locations namely, SVPUAT, Meerut (on 24.11.2022), ICAR-ATARI Kanpur (on 16.12.2022) and NDUAT, Ayodhya (on 6.01.2023).







Inauguration of Action Plan-2023 of KVKs (Zone-III) and Draft DARE Report 2022-23 of the ICAR Agricultural Extension Division, New Delhi





(Computer) and Head of KVK

Dr. U.S. Gautam took over the charge as a Dy. Director General (AE) at ICAR, New Delhi

Dr. U.S. Gautam, Director ICAR-ATARI, Kanpur took charge as a Dy. Director General (AE) at ICAR ICAR, New Delhi on 29.12.2022. Previously he was also Vice Chancellor of Banda Agriculture and Technology University, Banda from 2018 to 2021. He has more than 33 years experience in various Institutes. He has also awarded more than 15 National and International Awards. President of India Dr. A.P. J. Abdul Kalam also recognized and awarded his work. On this occasion all staff of ATARI congratulates him for his new assignment and conveyed best wishes.







Krishak Jagrukta Mela on Indian Natural Farming method and low rain fall based farming



Four days (09-12/10/2022) Krishak Jagrukta Mela on Indian Natural Farming method and low rain fall based farming was organised at Mahatama Gandhi Chitrakoot Gramoday University (MP).



Participation in International Conference on "Reimagining Rainfed Agro-ecosystems- Challenges & Opportunities" at ICAR-CRIDA, Hyderabad



Three days International Conference on "Reimagining Rainfed Agro-ecosystems-Challenges & Opportunities was organized by ISDA at CRIDA Hyderabad during 22-24 December 2022. Hon'ble Chancellor Dr. Panjab Singh invited as a Chief Guest. Other dignitaries Dr. A.K. Singh, Vice chancellor RLBCAU Jhansi, Dr. V.K. Singh Director CRIDA were also present on the occasion. Dr. Himanshu Pathak, Secretary DARE & DG ICAR, Dr. V.P. Chahal DDG (AE), Dr. S.K. Chaudhari DDG (NRM) joined virtually.

From ICAR-ATARI, Kanpur, Dr. Raghwendra Singh PS (Horti.) and Dr. Rajeev Singh, SRF (NICRA) ICAR-ATARI, Kanpur and 151 NICRA KVKs of whole country were also participated in this conference. Total 500 participants participates virtually and physically from different institutes, SAUs, Agriculture College, foreigner scientist and student actively participated in this Conference.

ANNEX

Annex-1

TRAINING PROGRAMMES IN DETAIL

A) Farmers & Farm women

A.1) ON Campus Trainings

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I. Crop Production										
Weed Management	81	1226	123	1349	374	106	480	1600	229	1829
Resource Conservation Technologies	58	787	85	872	290	46	336	1077	131	1208
Cropping Systems	67	1335	120	1455	394	135	529	1729	255	1984
Crop Diversification	30	395	53	448	185	49	234	580	102	682
Integrated Farming	37	593	123	716	221	40	261	814	163	977
Micro Irrigation/irrigation	20	309	48	357	110	22	132	419	70	489
Seed production	80	1133	115	1248	337	103	440	1470	218	1688
Nursery management	37	504	42	546	267	41	308	771	83	854
Integrated Crop Management	127	1887	177	2064	640	172	812	2527	349	2876
Soil & water conservatioin	26	419	38	457	104	31	135	523	69	592
Integrated nutrient management	57	855	59	914	299	49	348	1154	108	1262
Production of organic inputs	26	333	57	390	212	78	290	545	135	680
Others	48	716	123	839	229	74	303	945	197	1142
Total	**694**	**10492**	**1163**	**11655**	**3662**	**946**	**4608**	**14154**	**2109**	**16263**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	71	1258	211	1469	294	63	357	1552	274	1826
Off-season vegetables	35	498	70	568	199	52	251	697	122	819
Nursery raising	56	743	165	908	223	74	297	966	239	1205
Exotic vegetables	11	152	15	167	73	11	84	225	26	251
Export potential vegetables	9	145	37	182	57	3	60	202	40	242
Grading and standardization	15	204	55	259	54	21	75	258	76	334
Protective cultivation	33	427	48	475	189	50	239	616	98	714
Others	22	282	65	347	104	59	163	386	124	510
Total (a)	252	3709	666	4375	1193	333	1526	4902	999	5901
b) Fruits										
Training and Pruning	20	287	31	318	106	18	124	393	49	442
Layout and Management of Orchards	26	381	36	417	138	25	163	519	61	580
Cultivation of Fruit	27	434	46	480	122	26	148	556	72	628
Management of young plants/orchards	33	505	56	561	208	33	241	713	89	802
Rejuvenation of old orchards	24	303	58	361	109	26	135	412	84	496
Export potential fruits	2	31	3	34	9	1	10	40	4	44
Micro irrigation systems of orchards	13	147	30	177	95	21	116	242	51	293
Plant propagation techniques	7	90	17	107	48	6	54	138	23	161
Others	7	105	5	110	43	4	47	148	9	157
Total (b)	159	2283	282	2565	878	160	1038	3161	442	3603
c) Ornamental Plants										
Nursery Management	23	371	52	423	118	23	141	489	75	564
Management of potted plants	4	64	5	69	21	3	24	85	8	93
Export potential of ornamental plants	3	40	6	46	15	4	19	55	10	65
Propagation techniques of Ornamental Plants	2	33	4	37	7	1	8	40	5	45
Others	3	51	3	54	9	2	11	60	5	65
Total (c)	35	559	70	629	170	33	203	729	103	832
d) Plantation crops										
Production and Management	6	94	12	106	26	4	30	120	16	136

technology										
Processing and value addition	7	89	35	124	20	16	36	109	51	160
Others	2	34	3	37	8	2	10	42	5	47
Total (d)	15	217	50	267	54	22	76	271	72	343
e) Tuber crops										
Production and Management technology	24	297	68	365	120	23	143	417	91	508
Processing and value addition	3	60	0	60	15	0	15	75	0	75
Others	1	15	3	18	5	2	7	20	5	25
Total (e)	28	372	71	443	140	25	165	512	96	608
f) Spices										
Production and Management technology	17	218	25	243	81	6	87	299	31	330
Processing and value addition	2	28	7	35	9	1	10	37	8	45
Others	1	20	0	20	0	0	0	20	0	20
Total (f)	20	266	32	298	90	7	97	356	39	395
g) Medicinal and Aromatic Plants										
Nursery management	8	163	7	170	28	4	32	191	11	202
Production and management technology	9	158	14	172	36	7	43	194	21	215
Post harvest technology and value addition	4	34	8	42	16	1	17	50	9	59
Others	1	10	5	15	5	0	5	15	5	20
Total (g)	22	365	34	399	85	12	97	450	46	496
GT (a-g)	**531**	**7771**	**1205**	**8976**	**2610**	**592**	**3202**	**10381**	**1797**	**12178**
III. Soil Health and Fertility Mangmt.										
Soil fertility management	47	687	101	788	225	40	265	912	141	1053
Integrated water management	22	330	34	364	102	25	127	432	59	491
Integrated Nutrient Management	67	997	95	1092	381	66	447	1378	161	1539
Production and use of organic inputs	38	480	33	513	191	103	294	671	136	807
Management of Problematic soils	17	235	31	266	91	33	124	326	64	390
Micro nutrient deficiency in crops	23	342	31	373	93	10	103	435	41	476
Nutrient Use Efficiency	17	251	56	307	99	26	125	350	82	432
Balance use of fertilizers	26	353	54	407	126	43	169	479	97	576
Soil and Water Testing	32	406	102	508	131	28	159	537	130	667
Others	22	366	91	457	249	149	398	615	240	855
Total	**311**	**4447**	**628**	**5075**	**1688**	**523**	**2211**	**6135**	**1151**	**7286**
IV. Livestock Production and Mangmt.										
Dairy Management	83	1272	165	1437	442	134	576	1714	299	2013
Poultry Management	37	512	67	579	183	64	247	695	131	826
Piggery Management	8	107	14	121	56	7	63	163	21	184
Rabbit Management	1	15	2	17	5	2	7	20	4	24
Animal Nutrition Management	47	686	97	783	245	56	301	931	153	1084
Disease Management	69	968	159	1127	361	157	518	1329	316	1645
Feed & fodder technology	60	867	83	950	330	113	443	1197	196	1393
Production of quality animal products	22	292	68	360	93	49	142	385	117	502
Others	34	475	65	540	129	28	157	604	93	697
Total	**361**	**5194**	**720**	**5914**	**1844**	**610**	**2454**	**7038**	**1330**	**8368**
V. Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	74	259	975	1234	73	492	565	332	1467	1799
Design and development of low/minimum cost diet	26	11	427	438	16	174	190	27	601	628
Designing and development for high nutrient efficiency diet	38	88	421	509	42	229	271	130	650	780
Minimization of nutrient loss in processing	21	47	227	274	18	145	163	65	372	437
Processing and cooking	26	11	392	403	5	163	168	16	555	571

Gender mainstreaming through SHGs	8	5	88	93	4	75	79	9	163	172
Storage loss minimization techniques	17	32	220	252	32	84	116	64	304	368
Value addition	61	89	931	1020	63	368	431	152	1299	1451
Women empowerment	18	19	256	275	0	90	90	19	346	365
Location specific drudgery reduction technologies	14	5	175	180	12	133	145	17	308	325
Rural Crafts	11	2	130	132	2	110	112	4	240	244
Women and child care	54	23	758	781	6	357	363	29	1115	1144
Others	22	26	293	319	4	182	186	30	475	505
Total	**390**	**617**	**5293**	**5910**	**277**	**2602**	**2879**	**894**	**7895**	**8789**
VI. Agril. Engineering										
Farm Machinary and its maintenance	24	360	24	384	151	2	153	511	26	537
Installation and maintenance of micro irrigation systems	10	134	4	138	81	0	81	215	4	219
Use of Plastics in farming practices	9	38	91	129	21	48	69	59	139	198
Production of small tools and implements	4	49	18	67	20	10	30	69	28	97
Repair and maintenance of farm machinery and implements	16	225	13	238	89	2	91	314	15	329
Small scale processing and value addition	5	81	4	85	20	0	20	101	4	105
Post Harvest Technology	8	98	29	127	40	24	64	138	53	191
Others	13	198	7	205	61	6	67	259	13	272
Total	**89**	**1183**	**190**	**1373**	**483**	**92**	**575**	**1666**	**282**	**1948**
VII. Plant Protection										
Integrated Pest Management	131	1729	255	1984	740	154	894	2469	409	2878
Integrated Disease Management	82	1123	104	1227	465	117	582	1588	221	1809
Bio-control of pests and diseases	50	700	96	796	240	67	307	940	163	1103
Production of bio control agents and bio pesticides	18	279	32	311	77	22	99	356	54	410
Others	20	279	48	327	77	24	101	356	72	428
Total	**301**	**4110**	**535**	**4645**	**1599**	**384**	**1983**	**5709**	**919**	**6628**
VIII. Fisheries										
Integrated fish farming	21	348	53	401	154	27	181	502	80	582
Carp breeding and hatchery management	4	52	17	69	23	7	30	75	24	99
Carp fry and fingerling rearing	11	160	16	176	52	12	64	212	28	240
Composite fish culture	19	297	41	338	78	22	100	375	63	438
Hatchery management and culture of freshwater prawn	2	25	5	30	13	2	15	38	7	45
Breeding and culture of ornamental fishes	3	40	17	57	20	8	28	60	25	85
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	1	15	3	18	5	2	7	20	5	25
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	1	20	0	20	5	0	5	25	0	25
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	6	75	15	90	29	20	49	104	35	139
Others	2	30	7	37	7	1	8	37	8	45
Total	**49**	**1062**	**174**	**1236**	**386**	**101**	**487**	**1448**	**275**	**1723**
IX. Production of Inputs at site										
Seed Production	51	746	98	844	266	48	314	1012	146	1158
Planting material production	11	145	25	170	55	8	63	200	33	233
Bio-agents production	8	134	30	164	54	16	70	188	46	234
Bio-pesticides production	6	77	18	95	32	9	41	109	27	136
Bio-fertilizer production	6	82	19	101	42	13	55	124	32	156
Vermi-compost production	20	306	32	338	129	17	146	435	49	484
Organic manures production	13	160	51	211	75	23	98	235	74	309
Production of fry and fingerlings	1	18	0	18	0	0	0	18	0	18
Production of Bee-colonies and wax sheets	2	35	4	39	9	2	11	44	6	50

Small tools and implements	3	48	5	53	12	2	14	60	7	67
Production of livestock feed and fodder	5	58	10	68	48	16	64	106	26	132
Production of Fish feed	1	16	4	20	12	3	15	28	7	35
Mushroom Production	24	312	38	350	159	40	199	471	78	549
Apiculture	5	50	11	61	77	22	99	127	33	160
Others	16	229	46	275	51	6	57	280	52	332
Total	**172**	**2416**	**391**	**2807**	**1021**	**225**	**1246**	**3437**	**616**	**4053**
X. Capacity Building and Group Dynamics										
Leadership development	27	353	104	457	84	48	132	437	152	589
Group dynamics	25	265	46	311	157	62	219	422	108	530
Formation and Management of SHGs	41	493	165	658	131	99	230	624	264	888
Mobilization of social capital	15	189	7	196	50	13	63	239	20	259
Entrepreneurial development of farmers/youths	28	552	80	632	173	59	232	725	139	864
WTO and IPR issues	6	91	10	101	32	8	40	123	18	141
Others	15	232	21	253	54	13	67	286	34	320
Total	**157**	**2175**	**433**	**2608**	**681**	**302**	**983**	**2856**	**735**	**3591**
XI. Agro-forestry										
Production technologies	10	108	41	149	27	23	50	135	64	199
Nursery management	22	256	22	278	52	12	64	308	34	342
Integrated Farming Systems	14	202	44	246	93	31	124	295	75	370
Others	3	42	16	58	26	6	32	68	22	90
Total	**49**	**608**	**123**	**731**	**198**	**72**	**270**	**806**	**195**	**1001**
GRAND TOTAL	**3104**	**40075**	**10855**	**50930**	**14449**	**6449**	**20898**	**54524**	**17304**	**71828**

A.2) OFF Campus trainings for farmers and farm women

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I. Crop Production										
Weed Management	112	1524	134	1658	685	130	815	2209	264	2473
Resource Conservation Technologies	66	984	123	1107	382	68	450	1366	191	1557
Cropping Systems	72	1103	83	1186	360	60	420	1463	143	1606
Crop Diversification	39	580	66	646	190	38	228	770	104	874
Integrated Farming	39	581	81	662	230	54	284	811	135	946
Micro Irrigation/irrigation	28	442	143	585	191	86	277	633	229	862
Seed production	88	1315	153	1468	393	75	468	1708	228	1936
Nursery management	44	680	75	755	255	48	303	935	123	1058
Integrated Crop Management	145	1844	176	2020	1027	374	1401	2871	550	3421
Soil & water conservatioin	35	714	74	788	285	135	420	999	209	1208
Integrated nutrient management	80	1204	78	1282	364	114	478	1568	192	1760
Production of organic inputs	41	647	115	762	270	92	362	917	207	1124
Others	50	676	53	729	341	122	463	1017	175	1192
Total	**839**	**12294**	**1354**	**13648**	**4973**	**1396**	**6369**	**17267**	**2750**	**20017**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	111	1588	175	1763	553	182	735	2141	357	2498
Off-season vegetables	46	700	74	774	217	73	290	917	147	1064
Nursery raising	72	944	142	1086	391	90	481	1335	232	1567
Exotic vegetables	9	134	42	176	50	36	86	184	78	262
Export potential vegetables	15	183	41	224	85	35	120	268	76	344
Grading and standardization	23	347	50	397	99	26	125	446	76	522
Protective cultivation	37	474	70	544	198	69	267	672	139	811
Others	33	443	40	483	147	93	240	590	133	723
Total (a)	346	4813	634	5447	1740	604	2344	6553	1238	7791
b) Fruits										
Training and Pruning	20	296	45	341	103	37	140	399	82	481

Layout and Management of Orchards	41	627	79	706	182	52	234	809	131	940
Cultivation of Fruit	46	682	77	759	244	48	292	926	125	1051
Management of young plants/orchards	25	409	33	442	107	15	122	516	48	564
Rejuvenation of old orchards	28	420	35	455	122	28	150	542	63	605
Export potential fruits	5	66	19	85	28	17	45	94	36	130
Micro irrigation systems of orchards	11	158	12	170	67	5	72	225	17	242
Plant propagation techniques	8	100	16	116	74	13	87	174	29	203
Others	8	109	16	125	44	7	51	153	23	176
Total (b)	192	2867	332	3199	971	222	1193	3838	554	4392
c) Ornamental Plants										
Nursery Management	18	252	39	291	67	44	111	319	83	402
Management of potted plants	3	49	4	53	13	2	15	62	6	68
Export potential of ornamental plants	8	110	14	124	48	26	74	158	40	198
Propagation techniques of Ornamental Plants	13	180	36	216	69	16	85	249	52	301
Others	9	142	5	147	34	3	37	176	8	184
Total (c)	51	733	98	831	231	91	322	964	189	1153
d) Plantation crops										
Production and Management technology	11	201	5	206	36	4	40	237	9	246
Processing and value addition	6	83	24	107	37	20	57	120	44	164
Others	1	15	3	18	5	3	8	20	6	26
Total (d)	18	299	32	331	78	27	105	377	59	436
e) Tuber crops										
Production and Management technology	31	445	43	488	184	27	211	629	70	699
Processing and value addition	1	29	8	37	9	5	14	38	13	51
Others	0	0	0	0	0	0	0	0	0	0
Total (e)	32	474	51	525	193	32	225	667	83	750
f) Spices										
Production and Management technology	24	332	59	391	92	50	142	424	109	533
Processing and value addition	3	38	10	48	15	6	21	53	16	69
Others	3	30	3	33	28	2	30	58	5	63
Total (f)	30	400	72	472	135	58	193	535	130	665
g) Medicinal and Aromatic Plants										
Nursery management	8	128	4	132	32	5	37	160	9	169
Production and management technology	19	200	30	230	102	37	139	302	67	369
Post harvest technology and value addition	4	55	7	62	12	2	14	67	9	76
Others	1	52	4	56	0	0	0	52	4	56
Total (g)	32	435	45	480	146	44	190	581	89	670
GT (a-g)	**701**	**10021**	**1264**	**11285**	**3494**	**1078**	**4572**	**13515**	**2342**	**15857**
III. Soil Health and Fertility Mangmt.										
Soil fertility management	66	879	84	963	456	234	690	1335	318	1653
Integrated water management	27	454	68	522	104	37	141	558	105	663
Integrated Nutrient Management	82	994	206	1200	569	163	732	1563	369	1932
Production and use of organic inputs	40	535	49	584	285	70	355	820	119	939
Management of Problematic soils	18	233	45	278	127	56	183	360	101	461
Micro nutrient deficiency in crops	28	428	34	462	122	69	191	550	103	653
Nutrient Use Efficiency	15	320	26	346	60	14	74	380	40	420
Balance use of fertilizers	34	549	53	602	167	47	214	716	100	816
Soil and Water Testing	45	694	83	777	197	51	248	891	134	1025
Others	25	348	17	365	291	94	385	639	111	750
Total	**380**	**5434**	**665**	**6099**	**2378**	**835**	**3213**	**7812**	**1500**	**9312**
IV. Livestock Production and Mangmt.										
Dairy Management	106	1368	241	1609	678	274	952	2046	515	2561
Poultry Management	39	549	91	640	290	100	390	839	191	1030

Piggery Management	6	67	10	77	48	7	55	115	17	132
Rabbit Management	5	109	3	112	6	2	8	115	5	120
Animal Nutrition Management	74	1139	207	1346	419	130	549	1558	337	1895
Disease Management	129	2003	358	2361	624	266	890	2627	624	3251
Feed & fodder technology	73	957	124	1081	549	114	663	1506	238	1744
Production of quality animal products	13	172	39	211	93	25	118	265	64	329
Others	31	611	47	658	206	51	257	817	98	915
Total	**476**	**6975**	**1120**	**8095**	**2913**	**969**	**3882**	**9888**	**2089**	**11977**
V. Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	114	238	1413	1651	130	876	1006	368	2289	2657
Design and development of low/minimum cost diet	29	12	465	477	0	201	201	12	666	678
Designing and development for high nutrient efficiency diet	48	85	733	818	28	306	334	113	1039	1152
Minimization of nutrient loss in processing	34	43	537	580	20	199	219	63	736	799
Processing and cooking	15	4	207	211	0	90	90	4	297	301
Gender mainstreaming through SHGs	24	111	433	544	79	175	254	190	608	798
Storage loss minimization techniques	28	19	480	499	16	176	192	35	656	691
Value addition	80	21	1168	1189	28	574	602	49	1742	1791
Women empowerment	31	24	496	520	3	174	177	27	670	697
Location specific drudgery reduction technologies	34	24	478	502	6	253	259	30	731	761
Rural Crafts	17	2	280	282	2	115	117	4	395	399
Women and child care	62	15	1028	1043	11	514	525	26	1542	1568
Others	37	31	569	600	38	219	257	69	788	857
Total	**553**	**629**	**8287**	**8916**	**361**	**3872**	**4233**	**990**	**12159**	**13149**
VI. Agril. Engineering										
Farm Machinary and its maintenance	43	677	61	738	204	21	225	881	82	963
Installation and maintenance of micro irrigation systems	18	282	20	302	82	8	90	364	28	392
Use of Plastics in farming practices	16	147	83	230	74	68	142	221	151	372
Production of small tools and implements	5	76	2	78	26	0	26	102	2	104
Repair and maintenance of farm machinery and implements	36	574	25	599	150	12	162	724	37	761
Small scale processing and value addition	12	171	25	196	46	12	58	217	37	254
Post Harvest Technology	11	124	57	181	52	20	72	176	77	253
Others	23	344	9	353	109	11	120	453	20	473
Total	**164**	**2395**	**282**	**2677**	**743**	**152**	**895**	**3138**	**434**	**3572**
VII. Plant Protection										
Integrated Pest Management	203	2817	248	3065	1139	422	1561	3956	670	4626
Integrated Disease Management	140	2227	198	2425	673	184	857	2900	382	3282
Bio-control of pests and diseases	76	1237	84	1321	375	94	469	1612	178	1790
Production of bio control agents and bio pesticides	31	513	32	545	134	49	183	647	81	728
Others	29	355	47	402	179	82	261	534	129	663
Total	**479**	**7149**	**609**	**7758**	**2500**	**831**	**3331**	**9649**	**1440**	**11089**
VIII. Fisheries										
Integrated fish farming	22	361	38	399	105	22	127	466	60	526
Carp breeding and hatchery management	8	127	16	143	25	7	32	152	23	175
Carp fry and fingerling rearing	11	165	22	187	71	14	85	236	36	272
Composite fish culture	31	449	81	530	145	37	182	594	118	712
Hatchery management and culture of freshwater prawn	2	25	5	30	13	3	16	38	8	46
Breeding and culture of ornamental	2	15	23	38	5	2	7	20	25	45

fishes										
Portable plastic carp hatchery	2	30	6	36	18	8	26	48	14	62
Pen culture of fish and prawn	1	15	4	19	3	1	4	18	5	23
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	2	38	4	42	17	6	23	55	10	65
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	8	121	20	141	24	0	24	145	20	165
Others	4	62	0	62	23	0	23	85	0	85
Total	**93**	**1408**	**219**	**1627**	**449**	**100**	**549**	**1857**	**319**	**2176**
IX. Production of Inputs at site										
Seed Production	32	463	64	527	151	34	185	614	98	712
Planting material production	14	241	28	269	82	21	103	323	49	372
Bio-agents production	8	145	21	166	33	11	44	178	32	210
Bio-pesticides production	7	101	22	123	30	11	41	131	33	164
Bio-fertilizer production	6	84	13	97	27	4	31	111	17	128
Vermi-compost production	22	338	36	374	112	20	132	450	56	506
Organic manures production	7	113	8	121	43	13	56	156	21	177
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	3	48	7	55	20	5	25	68	12	80
Small tools and implements	2	36	12	48	17	8	25	53	20	73
Production of livestock feed and fodder	7	87	17	104	48	16	64	135	33	168
Production of Fish feed	1	9	0	9	3	1	4	12	1	13
Mushroom Production	24	319	265	584	146	104	250	465	369	834
Apiculture	8	93	126	219	63	57	120	156	183	339
Others	23	340	13	353	78	26	104	418	39	457
Total	**164**	**2417**	**632**	**3049**	**853**	**331**	**1184**	**3270**	**963**	**4233**
X. Capacity Building and Group Dynamics										
Leadership development	43	757	106	863	118	43	161	875	149	1024
Group dynamics	25	365	40	405	151	25	176	516	65	581
Formation and Management of SHGs	53	940	166	1106	157	111	268	1097	277	1374
Mobilization of social capital	18	200	47	247	53	72	125	253	119	372
Entrepreneurial development of farmers/youths	51	721	101	822	205	145	350	926	246	1172
WTO and IPR issues	2	34	1	35	8	3	11	42	4	46
Others	20	256	34	290	95	64	159	351	98	449
Total	**212**	**3273**	**495**	**3768**	**787**	**463**	**1250**	**4060**	**958**	**5018**
XI. Agro-forestry										
Production technologies	17	296	9	305	43	10	53	339	19	358
Nursery management	11	167	21	188	59	13	72	226	34	260
Integrated Farming Systems	14	222	29	251	80	35	115	302	64	366
Others	3	57	0	57	3	0	3	60	0	60
Total	**45**	**742**	**59**	**801**	**185**	**58**	**243**	**927**	**117**	**1044**
GRAND TOTAL	**4106**	**52737**	**14986**	**67723**	**19636**	**10085**	**29721**	**72373**	**25071**	**97444**

A.3) Consolidated (ON+OFF Campus) trainings for farmers & farm women

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I. Crop Production										
Weed Management	193	2750	257	3007	1059	236	1295	3809	493	4302
Resource Conservation Technologies	124	1771	208	1979	672	114	786	2443	322	2765
Cropping Systems	139	2438	203	2641	754	195	949	3192	398	3590
Crop Diversification	69	975	119	1094	375	87	462	1350	206	1556
Integrated Farming	76	1174	204	1378	451	94	545	1625	298	1923
Micro Irrigation/ irrigation	48	751	191	942	301	108	409	1052	299	1351
Seed production	168	2448	268	2716	730	178	908	3178	446	3624
Nursery management	81	1184	117	1301	522	89	611	1706	206	1912
Integrated Crop Management	272	3731	353	4084	1667	546	2213	5398	899	6297
Soil & water conservatioin	61	1133	112	1245	389	166	555	1522	278	1800
Integrated nutrient management	137	2059	137	2196	663	163	826	2722	300	3022
Production of organic inputs	67	980	172	1152	482	170	652	1462	342	1804
Others	98	1392	176	1568	570	196	766	1962	372	2334
Total	**1533**	**22786**	**2517**	**25303**	**8635**	**2342**	**10977**	**31421**	**4859**	**36280**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	182	2846	386	3232	847	245	1092	3693	631	4324
Off-season vegetables	81	1198	144	1342	416	125	541	1614	269	1883
Nursery raising	128	1687	307	1994	614	164	778	2301	471	2772
Exotic vegetables	20	286	57	343	123	47	170	409	104	513
Export potential vegetables	24	328	78	406	142	38	180	470	116	586
Grading and standardization	38	551	105	656	153	47	200	704	152	856
Protective cultivation	70	901	118	1019	387	119	506	1288	237	1525
Others	55	725	105	830	251	152	403	976	257	1233
Total (a)	598	8522	1300	9822	2933	937	3870	11455	2237	13692
b) Fruits										
Training and Pruning	40	583	76	659	209	55	264	792	131	923
Layout and Management of Orchards	67	1008	115	1123	320	77	397	1328	192	1520
Cultivation of Fruit	73	1116	123	1239	366	74	440	1482	197	1679
Management of young plants/orchards	58	914	89	1003	315	48	363	1229	137	1366
Rejuvenation of old orchards	52	723	93	816	231	54	285	954	147	1101
Export potential fruits	7	97	22	119	37	18	55	134	40	174
Micro irrigation systems of orchards	24	305	42	347	162	26	188	467	68	535
Plant propagation techniques	15	190	33	223	122	19	141	312	52	364
Others	15	214	21	235	87	11	98	301	32	333
Total (b)	351	5150	614	5764	1849	382	2231	6999	996	7995
c) Ornamental Plants										
Nursery Management	41	623	91	714	185	67	252	808	158	966
Management of potted plants	7	113	9	122	34	5	39	147	14	161
Export potential of ornamental plants	11	150	20	170	63	30	93	213	50	263
Propagation techniques of Ornamental Plants	15	213	40	253	76	17	93	289	57	346
Others	12	193	8	201	43	5	48	236	13	249
Total (c)	86	1292	168	1460	401	124	525	1693	292	1985
d) Plantation crops										
Production and Management technology	17	295	17	312	62	8	70	357	25	382
Processing and value addition	13	172	59	231	57	36	93	229	95	324
Others	3	49	6	55	13	5	18	62	11	73
Total (d)	33	516	82	598	132	49	181	648	131	779

e) Tuber crops										
Production and Management technology	55	742	111	853	304	50	354	1046	161	1207
Processing and value addition	4	89	8	97	24	5	29	113	13	126
Others	1	15	3	18	5	2	7	20	5	25
Total (e)	60	846	122	968	333	57	390	1179	179	1358
f) Spices										
Production and Management technology	41	550	84	634	173	56	229	723	140	863
Processing and value addition	5	66	17	83	24	7	31	90	24	114
Others	4	50	3	53	28	2	30	78	5	83
Total (f)	50	666	104	770	225	65	290	891	169	1060
g) Medicinal and Aromatic Plants										
Nursery management	16	291	11	302	60	9	69	351	20	371
Production and management technology	28	358	44	402	138	44	182	496	88	584
Post harvest technology and value addition	8	89	15	104	28	3	31	117	18	135
Others	2	62	9	71	5	0	5	67	9	76
Total (g)	54	800	79	879	231	56	287	1031	135	1166
GT (a-g)	**1232**	**17792**	**2469**	**20261**	**6104**	**1670**	**7774**	**23896**	**4139**	**28035**
III. Soil Health and Fertility Mangmt.										
Soil fertility management	113	1566	185	1751	681	274	955	2247	459	2706
Integrated water management	49	784	102	886	206	62	268	990	164	1154
Integrated Nutrient Management	149	1991	301	2292	950	229	1179	2941	530	3471
Production and use of organic inputs	78	1015	82	1097	476	173	649	1491	255	1746
Management of Problematic soils	35	468	76	544	218	89	307	686	165	851
Micro nutrient deficiency in crops	51	770	65	835	215	79	294	985	144	1129
Nutrient Use Efficiency	32	571	82	653	159	40	199	730	122	852
Balance use of fertilizers	60	902	107	1009	293	90	383	1195	197	1392
Soil and Water Testing	77	1100	185	1285	328	79	407	1428	264	1692
Others	47	714	108	822	540	243	783	1254	351	1605
Total	**691**	**9881**	**1293**	**11174**	**4066**	**1358**	**5424**	**13947**	**2651**	**16598**
IV. Livestock Production and Mangmt.										
Dairy Management	189	2640	406	3046	1120	408	1528	3760	814	4574
Poultry Management	76	1061	158	1219	473	164	637	1534	322	1856
Piggery Management	14	174	24	198	104	14	118	278	38	316
Rabbit Management	6	124	5	129	11	4	15	135	9	144
Animal Nutrition Management	121	1825	304	2129	664	186	850	2489	490	2979
Disease Management	198	2971	517	3488	985	423	1408	3956	940	4896
Feed & fodder technology	133	1824	207	2031	879	227	1106	2703	434	3137
Production of quality animal products	35	464	107	571	186	74	260	650	181	831
Others	65	1086	112	1198	335	79	414	1421	191	1612
Total	**837**	**12169**	**1840**	**14009**	**4757**	**1579**	**6336**	**16926**	**3419**	**20345**
V. Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	188	497	2388	2885	203	1368	1571	700	3756	4456
Design and development of low/minimum cost diet	55	23	892	915	16	375	391	39	1267	1306
Designing and development for high nutrient efficiency diet	86	173	1154	1327	70	535	605	243	1689	1932
Minimization of nutrient loss in processing	55	90	764	854	38	344	382	128	1108	1236
Processing and cooking	41	15	599	614	5	253	258	20	852	872
Gender mainstreaming through SHGs	32	116	521	637	83	250	333	199	771	970

Storage loss minimization techniques	45	51	700	751	48	260	308	99	960	1059
Value addition	141	110	2099	2209	91	942	1033	201	3041	3242
Women empowerment	49	43	752	795	3	264	267	46	1016	1062
Location specific drudgery reduction technologies	48	29	653	682	18	386	404	47	1039	1086
Rural Crafts	28	4	410	414	4	225	229	8	635	643
Women and child care	116	38	1786	1824	17	871	888	55	2657	2712
Others	59	57	862	919	42	401	443	99	1263	1362
Total	**943**	**1246**	**13580**	**14826**	**638**	**6474**	**7112**	**1884**	**20054**	**21938**
VI. Agril. Engineering										
Farm Machinary and its maintenance	67	1037	85	1122	355	23	378	1392	108	1500
Installation and maintenance of micro irrigation systems	28	416	24	440	163	8	171	579	32	611
Use of Plastics in farming practices	25	185	174	359	95	116	211	280	290	570
Production of small tools and implements	9	125	20	145	46	10	56	171	30	201
Repair and maintenance of farm machinery and implements	52	799	38	837	239	14	253	1038	52	1090
Small scale processing and value addition	17	252	29	281	66	12	78	318	41	359
Post Harvest Technology	19	222	86	308	92	44	136	314	130	444
Others	36	542	16	558	170	17	187	712	33	745
Total	**253**	**3578**	**472**	**4050**	**1226**	**244**	**1470**	**4804**	**716**	**5520**
VII. Plant Protection										
Integrated Pest Management	334	4546	503	5049	1879	576	2455	6425	1079	7504
Integrated Disease Management	222	3350	302	3652	1138	301	1439	4488	603	5091
Bio-control of pests and diseases	126	1937	180	2117	615	161	776	2552	341	2893
Production of bio control agents and bio pesticides	49	792	64	856	211	71	282	1003	135	1138
Others	49	634	95	729	256	106	362	890	201	1091
Total	**780**	**11259**	**1144**	**12403**	**4099**	**1215**	**5314**	**15358**	**2359**	**17717**
VIII. Fisheries										
Integrated fish farming	43	709	91	800	259	49	308	968	140	1108
Carp breeding and hatchery management	12	179	33	212	48	14	62	227	47	274
Carp fry and fingerling rearing	22	325	38	363	123	26	149	448	64	512
Composite fish culture	50	746	122	868	223	59	282	969	181	1150
Hatchery management and culture of freshwater prawn	4	50	10	60	26	5	31	76	15	91
Breeding and culture of ornamental fishes	5	55	40	95	25	10	35	80	50	130
Portable plastic carp hatchery	2	30	6	36	18	8	26	48	14	62
Pen culture of fish and prawn	2	30	7	37	8	3	11	38	10	48
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	3	58	4	62	22	6	28	80	10	90
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	14	196	35	231	53	20	73	249	55	304
Others	6	92	7	99	30	1	31	122	8	130
Total	**163**	**2470**	**393**	**2863**	**835**	**201**	**1036**	**3305**	**594**	**3899**
IX. Production of Inputs at site										
Seed Production	83	1209	162	1371	417	82	499	1626	244	1870
Planting material production	25	386	53	439	137	29	166	523	82	605
Bio-agents production	16	279	51	330	87	27	114	366	78	444
Bio-pesticides production	13	178	40	218	62	20	82	240	60	300
Bio-fertilizer production	12	166	32	198	69	17	86	235	49	284
Vermi-compost production	42	644	68	712	241	37	278	885	105	990
Organic manures production	20	273	59	332	118	36	154	391	95	486
Production of fry and fingerlings	1	18	0	18	0	0	0	18	0	18

Production of Bee-colonies and wax sheets	5	83	11	94	29	7	36	112	18	130
Small tools and implements	5	84	17	101	29	10	39	113	27	140
Production of livestock feed and fodder	12	145	27	172	96	32	128	241	59	300
Production of Fish feed	2	25	4	29	15	4	19	40	8	48
Mushroom Production	48	631	303	934	305	144	449	936	447	1383
Apiculture	13	143	137	280	140	79	219	283	216	499
Others	39	569	59	628	129	32	161	698	91	789
Total	**336**	**4833**	**1023**	**5856**	**1874**	**556**	**2430**	**6707**	**1579**	**8286**
X. Capacity Building and Group Dynamics										
Leadership development	70	1110	210	1320	202	91	293	1312	301	1613
Group dynamics	50	630	86	716	308	87	395	938	173	1111
Formation and Management of SHGs	94	1433	331	1764	288	210	498	1721	541	2262
Mobilization of social capital	33	389	54	443	103	85	188	492	139	631
Entrepreneurial development of farmers/youths	79	1273	181	1454	378	204	582	1651	385	2036
WTO and IPR issues	8	125	11	136	40	11	51	165	22	187
Others	35	488	55	543	149	77	226	637	132	769
Total	**369**	**5448**	**928**	**6376**	**1468**	**765**	**2233**	**6916**	**1693**	**8609**
XI. Agro-forestry										
Production technologies	27	404	50	454	70	33	103	474	83	557
Nursery management	33	423	43	466	111	25	136	534	68	602
Integrated Farming Systems	28	424	73	497	173	66	239	597	139	736
Others	6	99	16	115	29	6	35	128	22	150
Total	**94**	**1350**	**182**	**1532**	**383**	**130**	**513**	**1733**	**312**	**2045**
GRAND TOTAL	**7210**	**92812**	**25841**	**118653**	**34085**	**16534**	**50619**	**126897**	**42375**	**169272**

B) Rural Youths

B.1) ON Campus trainings

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	49	631	70	701	150	42	192	781	112	893
Training and pruning of orchards	50	700	214	914	252	131	383	952	345	1297
Protected cultivation of vegetable crops	15	199	10	209	83	6	89	282	16	298
Commercial fruit production	7	98	7	105	34	2	36	132	9	141
Integrated farming	22	313	18	331	82	7	89	395	25	420
Seed production	89	1046	136	1182	392	109	501	1438	245	1683
Production of organic inputs	49	574	74	648	131	61	192	705	135	840
Planting material production	19	281	45	326	89	21	110	370	66	436
Vermi-culture	32	424	35	459	154	58	212	578	93	671
Mushroom Production	71	927	159	1086	342	97	439	1269	256	1525
Bee-keeping	48	670	77	747	264	59	323	934	136	1070
Sericulture	4	61	7	68	7	4	11	68	11	79
Repair and maintenance of farm machinery & implements	20	275	10	285	113	9	122	388	19	407
Value addition	61	201	552	753	66	321	387	267	873	1140
Small scale processing	10	66	93	159	28	27	55	94	120	214
Post Harvest Technology	12	40	68	108	19	29	48	59	97	156
Tailoring and Stitching	14	19	161	180	11	58	69	30	219	249
Rural Crafts	17	37	201	238	0	41	41	37	242	279
Production of quality animal products	10	140	100	240	44	12	56	184	112	296
Dairying	38	504	82	586	154	52	206	658	134	792
Sheep and goat rearing	28	354	57	411	168	48	216	522	105	627
Piggery	8	158	7	165	108	4	112	266	11	277
Rabbit farming	1	19	2	21	20	0	20	39	2	41
Poultry production	26	317	42	359	94	23	117	411	65	476
Ornamental fisheries	3	28	12	40	22	3	25	50	15	65
Composite fish culture	12	168	12	180	58	6	64	226	18	244
Shrimp farming	2	24	6	30	14	6	20	38	12	50
Pearl culture	4	51	8	59	21	7	28	72	15	87
Cold water fisheries	3	64	3	67	13	0	13	77	3	80
Fish harvest and processing technology	4	40	11	51	23	6	29	63	17	80
Fry and fingerling rearing	2	31	2	33	1	1	2	32	3	35
Other	35	410	52	462	113	45	158	523	97	620
TOTAL	**765**	**8870**	**2333**	**11203**	**3070**	**1295**	**4365**	**11940**	**3628**	**15568**

B.2) OFF Campus trainings (Rural Youths)

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	19	254	72	326	107	35	142	361	107	468
Training and pruning of orchards	37	504	156	660	143	90	233	647	246	893
Protected cultivation of vegetable crops	10	133	35	168	39	17	56	172	52	224
Commercial fruit production	7	106	8	114	34	3	37	140	11	151
Integrated farming	13	174	27	201	48	21	69	222	48	270
Seed production	30	433	66	499	158	49	207	591	115	706
Production of organic inputs	16	224	30	254	74	23	97	298	53	351
Planting material production	5	79	3	82	33	6	39	112	9	121
Vermi-culture	9	118	18	136	47	15	62	165	33	198
Mushroom Production	23	302	98	400	118	118	236	420	216	636
Bee-keeping	11	159	36	195	34	18	52	193	54	247
Repair and maintenance of farm machinery and implements	2	22	2	24	6	1	7	28	3	31

Value addition	24	209	197	406	71	64	135	280	261	541
Small scale processing	1	2	13	15	0	0	0	2	13	15
Post Harvest Technology	5	59	13	72	28	15	43	87	28	115
Tailoring and Stitching	6	14	60	74	6	53	59	20	113	133
Rural Crafts	4	8	55	63	5	13	18	13	68	81
Production of quality animal products	5	70	13	83	27	9	36	97	22	119
Dairying	15	192	31	223	58	22	80	250	53	303
Sheep and goat rearing	13	212	20	232	53	24	77	265	44	309
Piggery	1	13	2	15	3	0	3	16	2	18
Rabbit farming	2	29	4	33	6	0	6	35	4	39
Poultry production	7	86	11	97	25	18	43	111	29	140
Composite fish culture	2	28	4	32	19	4	23	47	8	55
Shrimp farming	1	14	3	17	5	3	8	19	6	25
Pearl culture	2	28	5	33	12	5	17	40	10	50
Cold water fisheries	1	12	0	12	8	0	8	20	0	20
Fish harvest and processing technology	3	37	2	39	21	1	22	58	3	61
Other	15	195	15	210	66	10	76	261	25	286
TOTAL	**289**	**3716**	**999**	**4715**	**1254**	**637**	**1891**	**4970**	**1636**	**6606**

B.3) Consolidated ON+OFF Campus trainings (Rural Youths)

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	68	885	142	1027	257	77	334	1142	219	1361
Training and pruning of orchards	87	1204	370	1574	395	221	616	1599	591	2190
Protected cultivation of vegetable crops	25	332	45	377	122	23	145	454	68	522
Commercial fruit production	14	204	15	219	68	5	73	272	20	292
Integrated farming	35	487	45	532	130	28	158	617	73	690
Seed production	119	1479	202	1681	550	158	708	2029	360	2389
Production of organic inputs	65	798	104	902	205	84	289	1003	188	1191
Planting material production	24	360	48	408	122	27	149	482	75	557
Vermi-culture	41	542	53	595	201	73	274	743	126	869
Mushroom Production	94	1229	257	1486	460	215	675	1689	472	2161
Bee-keeping	59	829	113	942	298	77	375	1127	190	1317
Sericulture	4	61	7	68	7	4	11	68	11	79
Repair and maintenance of farm machinery and implements	22	297	12	309	119	10	129	416	22	438
Value addition	85	410	749	1159	137	385	522	547	1134	1681
Small scale processing	11	68	106	174	28	27	55	96	133	229
Post Harvest Technology	17	99	81	180	47	44	91	146	125	271
Tailoring and Stitching	20	33	221	254	17	111	128	50	332	382
Rural Crafts	21	45	256	301	5	54	59	50	310	360
Production of quality animal products	15	210	113	323	71	21	92	281	134	415
Dairying	53	696	113	809	212	74	286	908	187	1095
Sheep and goat rearing	41	566	77	643	221	72	293	787	149	936
Piggery	9	171	9	180	111	4	115	282	13	295
Rabbit farming	3	48	6	54	26	0	26	74	6	80
Poultry production	33	403	53	456	119	41	160	522	94	616
Ornamental fisheries	3	28	12	40	22	3	25	50	15	65
Composite fish culture	14	196	16	212	77	10	87	273	26	299
Shrimp farming	3	38	9	47	19	9	28	57	18	75
Pearl culture	6	79	13	92	33	12	45	112	25	137
Cold water fisheries	4	76	3	79	21	0	21	97	3	100
Fish harvest and processing technology	7	77	13	90	44	7	51	121	20	141
Fry and fingerling rearing	2	31	2	33	1	1	2	32	3	35
Other	50	605	67	672	179	55	234	784	122	906
TOTAL	**1054**	**12586**	**3332**	**15918**	**4324**	**1932**	**6256**	**16910**	**5264**	**22174**

C) Extension Functionaries

C.1) ON Campus trainings

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	81	1315	64	1379	410	19	429	1725	83	1808
Integrated Pest Management	60	858	94	952	241	32	273	1099	126	1225
Integrated Nutrient management	65	983	80	1063	313	76	389	1296	156	1452
Rejuvenation of old orchards	22	358	12	370	106	5	111	464	17	481
Protected cultivation technology	23	293	45	338	111	17	128	404	62	466
Production and use of organic inputs	32	498	69	567	191	28	219	689	97	786
Care & maintenance of farm machinery & implements	19	239	16	255	112	10	122	351	26	377
Gender mainstreaming through SHGs	11	124	17	141	61	18	79	185	35	220
Formation and Management of SHGs	14	194	87	281	64	13	77	258	100	358
Women and Child care	31	105	375	480	44	229	273	149	604	753
Low cost and nutrient efficient diet designing	27	44	360	404	30	113	143	74	473	547
Group Dynamics and farmers organization	10	118	74	192	29	13	42	147	87	234
Information networking among farmers	7	71	20	91	17	55	72	88	75	163
Capacity building for ICT application	11	171	26	197	45	13	58	216	39	255
Management in farm animals	22	328	30	358	74	37	111	402	67	469
Livestock feed and fodder production	27	349	39	388	108	87	195	457	126	583
Household food security	20	123	200	323	20	96	116	143	296	439
Other	78	1097	210	1307	365	85	450	1462	295	1757
TOTAL	**560**	**7268**	**1818**	**9086**	**2341**	**946**	**3287**	**9609**	**2764**	**12373**

C.2) OFF Campus trainings

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	39	670	54	724	158	13	171	828	67	895
Integrated Pest Management	43	654	18	672	146	13	159	800	31	831
Integrated Nutrient management	41	578	31	609	189	34	223	767	65	832
Rejuvenation of old orchards	11	178	7	185	58	7	65	236	14	250
Protected cultivation technology	19	303	13	316	71	3	74	374	16	390
Production and use of organic inputs	24	434	8	442	113	9	122	547	17	564
Care & maintenance of farm machinery & implements	5	83	10	93	18	0	18	101	10	111
Gender mainstreaming through SHGs	2	15	10	25	6	6	12	21	16	37
Formation and Management of SHGs	8	86	32	118	32	15	47	118	47	165
Women and Child care	19	16	252	268	0	92	92	16	344	360
Low cost and nutrient efficient diet designing	2	0	40	40	0	10	10	0	50	50
Group Dynamics and farmers organization	2	25	0	25	5	0	5	30	0	30
Information networking among farmers	1	7	0	7	3	0	3	10	0	10
Capacity building for ICT application	7	116	4	120	19	2	21	135	6	141
Management in farm animals	15	217	22	239	31	2	33	248	24	272
Livestock feed and fodder production	21	341	16	357	58	7	65	399	23	422
Household food security	6	17	80	97	11	11	22	28	91	119
Other	42	483	28	511	125	5	130	608	33	641
TOTAL	**307**	**4223**	**625**	**4848**	**1043**	**229**	**1272**	**5266**	**854**	**6120**

C.3) Consolidated ON+OFF Campus trainings (Extension functionaries)

Area of Training	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	120	1985	118	2103	568	32	600	2553	150	2703
Integrated Pest Management	103	1512	112	1624	387	45	432	1899	157	2056
Integrated Nutrient management	106	1561	111	1672	502	110	612	2063	221	2284
Rejuvenation of old orchards	33	536	19	555	164	12	176	700	31	731
Protected cultivation technology	42	596	58	654	182	20	202	778	78	856
Production and use of organic inputs	56	932	77	1009	304	37	341	1236	114	1350
Care & maintenance of farm machinery & implements	24	322	26	348	130	10	140	452	36	488
Gender mainstreaming through SHGs	13	139	27	166	67	24	91	206	51	257
Formation and Management of SHGs	22	280	119	399	96	28	124	376	147	523
Women and Child care	50	121	627	748	44	321	365	165	948	1113
Low cost and nutrient efficient diet designing	29	44	400	444	30	123	153	74	523	597
Group Dynamics and farmers organization	12	143	74	217	34	13	47	177	87	264
Information networking among farmers	8	78	20	98	20	55	75	98	75	173
Capacity building for ICT application	18	287	30	317	64	15	79	351	45	396
Management in farm animals	37	545	52	597	105	39	144	650	91	741
Livestock feed and fodder production	48	690	55	745	166	94	260	856	149	1005
Household food security	26	140	280	420	31	107	138	171	387	558
Other	120	1580	238	1818	490	90	580	2070	328	2398
TOTAL	**867**	**11491**	**2443**	**13934**	**3384**	**1175**	**4559**	**14875**	**3618**	**18493**

Annex-II

Soil Testing, SACs, Technology week celebration, RWHS, Technology backstopping by Directors of Extension and ATIC

(1) Soil, water and plant analysis/SHC

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)	No.of Soil Health Card Issued to farmers	No. of KVKs
Soil	23368	39073	1418	318201	17009	38
Water	410	149	95	-	-	7
Plant	780	840	240	-	-	5
Manure	2	2	-	-	-	2
Total	**24560**	**40064**	**1753**	**318201**	**17009**	**52**

(2) SACs (Scientific Advisory Committee Meetings)

S.No.	Name of KVK	No.of SACs conducted	Date of SAC
	ANDUAT, Ayodhya		
1	Ambedkar Nagar	1	16.01.2022
2	KVK Ayodhya	1	18.02.2021
3	Bahraich II	1	02.11.2021
4	Balrampur	1	24.03.2022
5	Gonda II	1	12.07.2021
6	Jaunpur-I	1	03.02.2022
7	Jaunpur II	1	02.04.2021
8	Mahrajganj	1	20.02.2022
9	Siddharthnagar	1	23.03.2022
10	Sonbhadra	1	23.02.2021
11	Sultanpur II	1	09.03.2022
	BUAT, Banda		
12	Banda	1	11.11.2022
13	Hamirpur	1	12.02.2022
14	KVK, Jhansi	1	21.10.2022
15	Lalitpur	1	22.10.2022
16	KVK, Mahoba	1	01.12.2022
17	Prayagraj-II	1	26.09.2022
18	Jalaun	1	07.12.2022
	SVPUAT, Meerut		
19	Amroha	1	16.11.2022
20	Badaun-I	1	28.11.2022
21	Badaun-II	1	28.11.2022
22	Baghpat	1	23.11.2022

23	Bijnor	1	25.11.2022
24	Bulandshahr	1	19.11.2022
25	G B Nagar	2	17.01.2022 & 01.12.2022
26	Ghaziabad	1	26.11.2022
27	Hapur	1	25.11.2022
28	Meerut	1	14.11.2022
29	Moradabad-I	1	15.11.2022
30	Moradabad-II	1	15.11.2022
31	Muzaffarnagar-I	1	30.11.2022
32	Muzaffarnagar-II	2	10.01.2022 & 31.11.2022
33	Pilibhit	1	11.11.2022
34	Rampur	1	17.11.2022
35	Sambhal	1	18.11.2022
36	Shahjahanpur	1	13.12.2022
37	Shamli	2	11.01.2022 & 21.11.2022
	ICAR KVKs		
38	Bhadohi	1	19.09.2022
39	Bareilly	1	25.02.2022
40	Deoria	1	16.10.2022
41	Hardoi-II	1	25.09.2021
42	Lakhimpur Kheri-II	1	25.03.2022
	NGO and other		
43	Agra	1	30.11.2021
44	Chitrakoot	1	04.03.2022
45	Ghazipur-1	1	23.03.2022
46	Gorakhpur-II (MGKVK)	1	26.03.2021
47	Kaushambi	1	06.12.2022
48	Sitapur-II	1	26.11.2021
49	Prayagraj-I	1	25.11.2022
50	Mathura	1	20.03.2021
51	Mirzapur	1	15.03.2022
52	Gonda-I	1	21.12.2022
	CSAUAT		
53	Fatehpur	1	03.02.2022
54	Etawah	1	27.10.2021
55	Hardoi	1	27.09.2021
	Total	**58**	
Note: Date of SACs of 12 KVKs for the year 2021 has been spilledover to next year			

(3) Technology week celebrations

Type Activities	No. of activities	No. of participants	No of KVKs
Gosthies	601	33613	78
Lectures organised	1367	26003	77
Exhibition	103	54364	64
Film show	111	5634	40
Fair	256	26149	36
Farm Visit	361	24829	76
Diagnostic Practicals	868	8581	73
Distribution of Literature (No.)	4953	66492	62
Distribution of Seed (q)	649.5	5076	44
Distribution of Planting materials (No.)	170028	44949	55
Bio Product distribution (Kg)	5390	4252	46
Bio Fertilizers (q)	42	547	30
Distribution of Livestock specimen (No.)	230	131	9
Total number of farmers visited the technology week	254	25871	52
Total	**8620 activities**	**326491**	**-**

(4) Rain Water Harvesting Structures (RWHS) & Micro Irrigation System

Sr. No.	Activities	Number
1	Training programmes	17
2	Demonstration	324
3	Plant materials produced	2530
4	Visit by farmers	3268
5	Visit by officials	86

(5) Technology backstopping by Directors of Extension

5.1) Workshops / meetings organized

S. No.	Details of workshop/meeting conducted	No. of KVKs participated
1	Extension Council	27
2	Monthly Meeting	22
3	Review Meeting	47
4	Workshop on Natural Farming	8
5	Workshop on Goat Farming	8
6	Chandrashekhar Samiti meeting on every month day of 5th	5
7	Content management System workshop	30
8	Annaul Zonal Workshop	89
9	Content management workshop	20
10	Prakarti Kheti se krishi smridhi	20
11	IIL launching workshop	1

5.2) Visits made by DE / Officials in the Directorate to KVKs

S. No.	Particulars	Number of visits
1	SAC meetings	52
2	Field days	62
3	Workshops / seminars	16
4	Technology week	9
5	Training programmes	79
6	Others (Ex. Trainees meets)	30

5.3) Overseeing of KVKs activities

S. No.	Particulars	Number of fields visited	Major suggestions given
1	On Farm Trials	71	Demonstration board should be installed
2	Front Line Demonstration	84	-
3	Others (Bee keeping)	26	-

5.4) Publication on Technology inventory

S. No.	Particulars	Number
1	Directorates published the technological inventory	30
2	Directorates constantly updating the technological inventory	16

5.5) Technological Products provided to KVKs

S. No.	Major technologies provided	Number of KVKs
1	Seeds	59
2	Planting materials	16
3	Bio-products	3
6	Poultry breed	4
8	Others (Fish/fingerlings)	6

6) ATIC (Agricultural Technology Information Centre)

6.1) Details on Farmer's visit

Purpose of visit	Number of farmer's visited
Technology Information	5440
Technology Products	1038
Others if any pl. specify	302
Total	**6780**

6.2) Facilities in the ATIC which are in operation

Particulars	Availability (Please √ mark)	Number of ATICs
Reception counter	√	3
Exhibition / technology museum	√	2
Touch screen Kiosk	√	2
Cafeteria	√	2
Sales counter	√	2
Farmer's feedback register	√	2
Others if any (please specify)	√	1

6.3) Technology information provided

6.3.1) Details on technology information

Information category	No.of ATICs	Total no. of farmers benefitted	Category of information						
			Varieties / hybrids	Pest mangmt	Disease mangmt.	Agro - tech.	Soil and water conservation	Post Harvest technology and Value addition	Animal Husbandry and fisheries
Kisan Call Centre / other Phone calls from farmers	378	4832	669	1356	1497	156	195	352	251
Video shows	17	1362	0	0	0	0	0	0	0
Letters received	1	43	4	8	12	13	0	0	6
Letters replied	1	38	4	8	12	9	0	0	5
Training to farmers / technocrats / students	15	1292	65	107	20	132	45	0	83

6.3.2) Publications

Particulars	Number sold	Revenue generated in Rs.	Number of farmers benefited
Technical bulletins	14294	444850	4500
Technology Inventory	3990	498750	3167
Total	**18284**	**943600**	**7667**

6.3.3) Technology Products provided

Particulars	Quantity	Unit of quantity	Value in Rs.	Number of farmers benefited
Seeds	1724.94	Quintal	6598530	7667

6.3.4) Technology services provided

Particulars	Number of farmers benefited
Soil and water testing	652
Plant diagnostics	689
Details about the services to line Departments	2058

Annex-III

Achievements of Projects & Special Programmes

(1) NICRA

S.No.	Category	Demo	Area (ha)	
1	NRM	592	626.35	
2	Crop Production	3669	1346.10	
		Demo	**Area (ha)**	**No. of Animals**
3	Livestock & Fisheries	1147	69.15	3461
		Courses	**No. of Farmers benefitted**	
4	Capacity building	179	4417	
		No. of programmes	**No. of Farmers benefitted**	
5	Extension Activities	187	7316	
	Total farmers benefitted	**-**	**11733**	**-**
	Total area covered	**-**	**2041.60**	**-**
	Total demonstrations	**5408**	**-**	**-**

(2) 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	224	12	187	72	113	40
2	Fruits and vegetable processing units,	1	3	39	31	15	1
3	Horticulture nursery	4	3	58	2	12	0
4	Poultry	141	9	115	18	93	6
5	Goat farming	112	11	146	26	93	19
6	Crop+Vegetables+Guava orchards	3	1	3	18	23	371
7	Bee keeping	63	8	156	23	67	9
8	Others (vermin compost & seed Prodn. etc)	20	3	45	5	16	4
	Total	**568**	**50**	**749**	**195**	**432**	**450**

(3) Crop Residue Management (CRM)

3.1 CRM Machinery procured by KVKs

S.No.	Name of the Machine/ Equipment	No. of machines procured	No. of KVKs
1	Happy Seeder	22	14
2	Reversible M.B. Plough	23	11
3	Paddy Straw Chopper/ Shradder / Mulcher	33	11
4	Zero Till Drill	18	8
5	Rotavator	9	6
6	Tractor	10	6
	Total	**115**	**-**

3.2 IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities	No. of Participants	No. of KVKs
1	Kisan Melas organized	29	11445	15
2	Awareness programmes conducted at Village Panchayat/ Block/ District Level	200	20843	18
3	Mobilization of schools and colleges through essay completion, painting, debate etc.	107	15293	18
4	Demonstration conducted (ha)	2874.00	5006	17
5	Training Programmes conducted	128	2438	18
6	Exposure visits organized	50	2161	17
7	Field /harvest days organized	49	2705	17
		563	**59891**	**-**

3.3 Other IEC activities organized under CRM Project by KVKs

S. No.	Name of IEC activity	No. of activities	No. of KVKs
1	Advertisement in Print media	213	18
2	Column / Articles in newspaper and magazines etc.	310	18
3	Hoarding fixed (at Mandi/ Road side/Market/ Schools/ Petrol pump/ Panchayat etc.)	211	18
4	Poster/Banner placed	7562	18
5	Publicity material - leaflets/ pamphlets etc. distributed	166776	19
6	TV programmes/ panel discussions Doordarshan/ DD-Kisan and other private channels	253	15
7	Wall writing	6718	18
	Total	**182043**	**-**

(4) 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	51	43	17	272	60	315	77	392
2	Agriculture Machinery Demonstrator	200	1	12	6	16	6	28	12	40
3	Animal Health Worker	300	1	16	6	14	8	30	14	44
4	Beekeeper	200	1	14	0	11	0	25	0	25
6	Broiler Farm Worker	200	1	12	0	8	0	20	0	20
7	Mushroom Grower	200	2	32	16	22	12	54	28	82
8	Nursery Worker	200	1	3	2	11	4	14	6	20
9	Organic Grower	200	2	5	0	30	5	35	5	40
10	Quality Seed Grower	200	3	39	2	35	4	74	6	80
	TOTAL		**63**	**176**	**49**	**419**	**99**	**595**	**148**	**743**

(5) Pulses Seed Hub

Season	Name of Pulse crop	Variety	Production		Category of seed (F/S, C/S)
			Target (q)	Actual Production (q)	
Kharif	Black gram	IPU2-43, IPU 11-2	105	110.2	F/S
	Green Gram	IPM2-3, PDM-139, Virat	130	157.7	F/S
	Pigeon pea	IPA-203 (long duration)	202.6	108.08	F/S
	Total		**437.6**	**375.98**	
Rabi	Chick pea	JG-12, JG-36, RVG 203, Pusa-542, IPC 2005-62, IPC2006-77	1108.5	755.74	F/S
	Field pea	IPFD 10-12, IPD 12-2, KPMR-400	2890.48	2548.89	F/S
	Lentil	IPL-220 (2018), IPL 315, KLB-345 (2014), KLS-122	535.55	367.83	F/S
	Total		**4534.53**	**3672.46**	
Summer	Black gram	IPU 11-02	9.85	9.85	F/S
	Green Gram	IPM2-3, Shikha	144.37	113.31	F/S
	Total		**154.22**	**123.16**	
	Grand Total		**5126.35**	**4171.6**	**-**

(6) TSP & KSHAMTA

6.1 Achievement of TSP (Tribal Sub Plan)

S.No.	Activities	Number
1	**Farmers Training**	
	No. of Trainings/Demons	52
	No. of Farmers	1695
2	**Women Farmer Training**	
	No. of Trainings/Demons	28
	No. of women farmers	735
3	**Rural Youths**	
	No. of Trainings/Demons	12
	No. of youths	255
4	**Extension Personnel**	
	No. of Trainings/Demons	4
	No. of Extention Persons	112
5	**Number of farmers involved**	
	On- farm trials	40
	Frontline demos	1398
	Mobile agro- advisory to farmers	1142
6	**Participants in extension activities (No.)**	2206
7	**Production of seed (q)**	2182.50
8	**Production of Planting material (Number in lakh)**	0.25
9	**Production of Livestock strains (Number in lakh)**	142.02
10	**Production of fingerlings (Number in lakh)**	0.01
11	**Testing of Soil, water, plant, manures samples (Number)**	72

6.2 KSHAMTA (Knowledge Systems and Homestead Agriculture Management in Tribal Areas)

Number of Adopted Villages	No. of Activities		No. of farmers benefited	
	Demo	Training	Demo	Training
14	583	70	1855	1758

(7) SCSP (Schedule Cast Sub Plan)

S.No.	Activities	Number
1	**Farmers Training**	
	No. of Trainings/Demons	545
	No. of Farmers	14364
2	**Women Farmer Training**	
	No. of Trainings/Demons	149
	No. of women farmers	3376

3	**Rural Youths**	
	No. of Trainings/Demons	78
	No. of youths	2117
4	**Extension Personnel**	
	No. of Trainings/Demons	57
	No. of Extention Persons	1233
5	**Number of farmers involved**	
	On- farm trials	578
	Frontline demos	7921
	Mobile agro- advisory to farmers	118673
6	**Participants in extension activities (No.)**	59896
7	**Production of seed (q)**	999.01
8	**Production of Planting material (Number in lakh)**	0.85
9	**Production of Livestock strains (Number in lakh)**	0.04
10	**Production of fingerlings (Number in lakh)**	2.00
11	**Testing of Soil, water, plant, manures samples (No.)**	2108

(8) Farmer FIRST programme

8.1) Module wise summary at a glance

NRM Module		Crop Module		Horticulture Module		Livestock & Poultry			IFS Model		Extension Activities	
Demonstrations (No.)	No of Farm Families	Demonstrations (No.)	No of Farm Families	Demonstrations (No.)	No of Farm Families	Demonstrations (No.)	No of Farm Families	No of Animals	Demonstrations (No.)	No of Farm Families	No. of prog.	Farmers
203	404	2824	2281	1450	1237	1522	1561	4313	683	730	1639	3900
Total Demonstrations: 6682 **Families covered:** 6213 **Farmers benefitted**:3900												

8.2) Module wise details of achievements under Farmers FIRST

- **Crop module**

Name of crop	Yield (q/ha)		Net income (Rs/ha)	
	Farmers practice	Demo	Farmers practice	Demo
Grounnut	13.05	15.81	38647.00	53201.00
Greengram	7.86	9.41	46908.75	58201.13
Blackgram	6.30	7.70	21665.00	30509.00
Wheat	37.27	47.73	26953.31	45772.93
Berseem	521.90	891.00	48780.00	113127.00
Greengram (by ZT)	11.22	11.85	54507.00	60462.00
Paddy	42.00	56.00	52680.00	82240.00
Sugarcane	712.00	819.00	99590.00	276100.00
Mustard	10.85	14.22	52350.00	62349.81
Average	**151.38**	**208.08**	**49120.12**	**86884.76**

- **Horticulture Module**

Name of crop	Yield (q/ha)		Net income (Rs/ha)	
	Farmers practice	Demo	Farmers practice	Demo
Bottlegourd	291.80	420.00	178261.50	275837.00
Spongegourd	168.00	209.00	130184.00	170701.00
Cowpea	85.12	110.00	116960.48	179136.90
Pumpkeen	113.00	135.50	52126.50	66395.50
Okra	44.14	66.35	75873.75	103346.25
Average	**140.41**	**188.17**	**110681.25**	**159083.33**

- **NRM Module**

Name of crop	Yield (q/ha)		Net income (Rs/ha)	
	Farmers practice	Demo	Farmers practice	Demo
Gwava, citrus, coronda	7.5	10	15000	20000
Average	**7.5**	**10**	**15000**	**20000**

- **Livestock & Poultry**

Name of animal	Production with unit (litre/kg/no.)		Net income (Rs/ha)	
	Farmers practice	Demo	Farmers practice	Demo
Poultry	340/eggs/month	50eggs/month	250	350
Baffaloe	6.75 l/day	7.91 l/day	270	316
Cow	2.5 l/day	3.45 l/day	87.5	120.75

- **IFS module**

Models	Net income (Rs/ha)	
	Farmers practice	Demo
Goatery + Horticulture	40000 per year	60000 per year

- **Enterprise module**

Name of enterprise	Net income (Rs/unit)
Vermicompst	84000
NB Hybrid	32000
Earthworm	19500

9) DAMU (Distt. Agrometeorology Unit) Project

S.No.	Activity	No.
1	Number of Ago. Advisory services (AAS)	104
2	Number of Farmer Awareness Programs (FAP)	3
3	Number of Trainings	9
4	Number of Bulletins	624
5	Number of Whatsapp Messages	72
6	Diagnostic Field visit	28
7	Number of Articles/News published in newspapers	31

(10) Natural farming

S.No.	Name of KVK	No. of awareness / training programmes organized	No. of Participants	No. of demonstrations organized at farms of KVKs	No. of farmers visited demonstration plots
1.	Aligarh	5	520	12	55
2.	KVK Allahabad	7	668	1	850
3.	Amethi	7	361	3	482
4.	Azamgarh	2	540	16	388
5.	Azamgarh II	2	50	2	65
6.	Badaun -I	13	310	2	310
7.	Bahraich-I	3	120	16	284
8.	Ballia	3	120	16	70
9.	Banda	6	1065	16	1265
10.	Barabanki	3	500	10	100
11.	Bareilly	7	311	4	74
12.	Bhadohi	7	288	0	0
13.	Bijnor	14	560	2	2500
14.	Chandauli	3	580	16	145
15.	Chitrakoot	16	1183	20	1135
16.	Etah	4	215	3	215
17.	Etawah	5	510	2	40
18.	Farrukhabad	2	270	10	35
19.	Gonda II	4	62	3	25
20.	Hapur	3	345	3	865
21.	Kasganj	2	373	10	107
22.	Kaushambhi	8	383	16	140
23.	Lalitpur	4	318	7	1252
24.	Lucknow	6	125	12	125
25.	Mahoba	4	114	16	93
26.	Mau	3	178	2	345
27.	Meerut	6	490	8	340
28.	Mirzapur	11	778	3	642
29.	Moradabad-I	8	160	1	150
30.	Moradabad-II	16	380	1	560
31.	Muzaffarnagar-Ist	3	150	1	172
32.	Muzaffarnagar-II	7	120	0	120
33.	Prayagraj-II	3	75	1	165
34.	Sambhal	17	555	16	580
35.	Shahjahanpur	6	330	1	180
36.	Siddharthnagar	6	255	1	55
37.	Sitapur I	8	318	4	405
38.	Sultanpur-1	5	185	16	25
39.	Sultanpur II	6	184	2	325
40.	Unnao	5	658	1	1250
41.	Varanasi	12	1478	4	672
	Total	**262**	**16185**	**280**	**16606**

(11) IFS (Integrated Farming System)

Sl. No.	Component Name	No. of components established	Area (ha)	Number of Activities		No. of farmers benefited	
				Demo	Training	Demo	Training
1	Crop+vegetables+guava orchard	1	0.40	1	6	5	125
2	Crop+poultry+ vermicompost + natural farming	1	0.40	1	7	8	144
3	Duckery+fishries+ horticulture	1	0.20	1	5	10	102
4	Intercropping System(Kharif-Rabi-Zaid) –Livestock	2	0.40	3	2	21	74
5	Mixed Farming System(Kharif-Rabi-Zaid) –Livestock	2	0.40	2	1	17	63
6	Paddy, Mustard + Banana	1	15.00	2	1	20	20
7	Agriculture + horticulture + floriculture under protected cultivation	3	8.60	1	2	15	40
8	Dairy Based Integrated farming System	1	12.00	2	2	10	40
9	Horticulture Based Integrated farming System	1	14.05	4	3	20	60
10	Crop, Goat and Sheep rearing, Dairy, Vermicomposting, Fish farming, Beekeeping, Vegetables and Poultry	11	2.27	2	6	549	124
11	Vermi composting, Bee keeping, fishery, crop, Goat and Sheep rearing, dairy, vegetables and Poultry	7	15.40	16	10	156	117
	Total	**31**	**69.12**	**35**	**45**	**831**	**909**

(12) Aspirational District Scheme

Name of programme	Number
Training	
Session No.	49
No. of farmers	1155
Officers/staff involved	101
Seed & Plant Distribution	
Programme number	15
Seed distribution in q	300.72
No. of plant distributed	49814
Biological products distributed	205
No. of programme organised	51
No. of farmers	1098
Officers/staff involved	54
Animal husbandra & fish distribution programme	
Vaccination	512
Medicine for control of parasite	226
Distribution of mineral mixure	35
No. of farmers	615
Officers/staff involved	55

(13) NARI programme

a) Details of activities performed under NARI programme

S.No.	Programmes	No. of activities	No. of farmers
1	Nutritional Garden	1146 units established	1870
2	Bio-fortified crops	61	1473
3	Value addition	60	969
4	Training programmes	276	6371
5	Extension activities	219	8345
	Total	**616**	**19028**

b) Bio-Fortified Crops used for nutritional security

Category	Bio Fortified Crop	Variety	Area (ha)	No of farmers
Cereal	Maize	QPM-1	18.20	153
	Rice	CR Dhan 315	4.00	14
	Wheat	K-1006, WB 2, DBW 187,173, 303, Tejas, WB023	480.70	1079
		Total	**502.90**	**1246**
Millet	Finger millet	-	0.16	4
	Pearlmillet	-	2.90	15
		Total	**3.06**	**19**
Oilseed	Groundnut	-	11.20	37
	Mustard	Pusa Mustard 25 & 30, 31, 32	21.45	87
	Linseed	Uma	1.00	10
		Total	**33.65**	**134**
Pulses	Lentil	Pusa Masoor Ageti, Pusa Ageti Masoor 1, IPL 220	14.02	105
		Total	**14.02**	**105**
Vegetable	Cauliflower	Hy NS 555, Pusa Meghana, Pusa Beta Kesari	3.2	110
		Total	**3.2**	**110**
Tuber	Sweet Potato	Pusa-Sunahari	0.25	25
		Total	**0.25**	**25**
		Grand Total	**557.08**	**1641**

(14) 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	
				Adopter household	Non adopter household
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	1	1	40	1
Total	**3**	**21**	**11**	**80**	**41**

(15) Swachhata Abhiyan Mission

S.No.	Items	No. of Programmes	No. of persons participated
1	Toilet maintenance	84	1840
2	Road, drain cleaning	244	4006
3	Garbage disposal	205	2124
4	Door to door awareness	183	3777
5	Awareness campaign	518	11326
6	Nookkad Drama	3	98
7	School Drama	8	763
8	School rally	39	2979
9	Writing paining slogans	44	858
10	Composting	126	1562
11	Kisan Mela/Diwas	1	518
12	Swachhta Kakhwada	30	341
13	Goshties	2	154
14	Other	100	3432
	Total	**1587**	**33778**

(16) MGMG (Mera Gaon Mera Gaurav)

No. of institutes/ universities involved	Total No of Groups/team formed	No. of Scientists Involved	No. of villages covered	No. of field activities conducted	No. of messages/ advisory sent	Farmers benefited (No.)
4	61	275	346	290	435	2500

(17) Rainwater Harvesting Structures

Sr. No.	Activities	Number
1	Training programmes	17
2	Demonstration	324
3	Plant materials produced	2530
4	Visit by farmers	3268
5	Visit by officials	86

Annex-IV

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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	Y	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	Y	0	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	Y	0	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	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	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	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	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	N	N	N	N	N	N	Y	0	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	N	0	N	N
46	Raebareili-II	SAU	2021	10.223	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	N	0	N	N
47	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
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	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	Y	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	Y	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	Y	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	Y	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	Y	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	Y	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	Y	0	N	N
67	Moradabad-II	SAU	2020	12.00	N	N	N	N	N	N	N	N	-	N	-	-	N	N	N	N	N	N	N	N	Y	0	N	N
E)	**ICAR Institute**																											
68	Bareilly	ICAR	1985	6.900	Y	N	Y	N	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	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	Y	0	N	N
71	Kushinagar	ICAR	2005	20.000	Y	Y	Y	N	Y	Y	Y	Y	-	N	2	-	Y	N	Y	N	N	N	N	N	Y	0	Y	Y
72	Sant Ravidas Nagar	ICAR	2008	18.416	Y	Y	Y	N	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	N	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	-	-	N	N	N	N	N	N	N	N	Y	0	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	N	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	Y	2	Y	2	2	N	N	Y	N	N	N	N	Y	Y	0	Y	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**	**87**	**70**	**66**	**7**

Annex-V

KVK wise Staff Position

S. No.	Name of KVK	KVK Category	Name of the Host Organization	Head			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	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	0	1	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	2	0	16	13	3
2	Basti	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	2	2	0	2	2	0	16	14	2
3	Ballia	SAU	NDUAT, Ayodhya	1	0	1	6	5	1	1	1	0	1	0	1	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	11	5
4	Mau	SAU	NDUAT, Ayodhya	1	0	1	6	6	0	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	0	2	16	10	6
5	Varanasi	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	2	2	0	2	2	0	16	14	2
6	Siddharthnagar	SAU	NDUAT, Ayodhya	1	1	0	6	4	2	1	1	0	1	0	1	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	11	5
7	Faizabad	SAU	NDUAT, Ayodhya	1	1	0	6	5	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
8	Gorakhpur-I	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	2	0	16	14	2
9	Mahrajganj	SAU	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
10	Sonbhadra	SAU	NDUAT, Ayodhya	1	1	0	6	3	3	1	0	1	1	1	0	1	1	0	1	1	0	1	0	1	2	2	0	2	2	0	16	11	5
11	Azamgarh-I	SAU	NDUAT, Ayodhya	1	0	1	6	6	0	1	1	0	1	1	0	1	0	1	1	0	1	1	0	1	2	2	0	2	0	2	16	10	6
12	Barabanki	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0	2	2	0	2	2	0	16	14	2
13	Balrampur	SAU	NDUAT, Ayodhya	1	1	0	6	5	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	1	1	16	13	3
14	Chandoli	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	13	3
15	Jaunpur-I	SAU	NDUAT, Ayodhya	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	1	1	16	14	2
16	Sant Kabir Nagar	SAU	NDUAT, Ayodhya	1	1	0	6	5	1	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
17	Ambedkar Nagar	SAU	NDUAT, Ayodhya	1	1	0	6	5	1	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	0	2	16	11	5
18	Amethi	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	0	2	16	13	3
19	Bahraich-II	SAU	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	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	13	3
21	Sultanpur-II	SAU	NDUAT, Ayodhya	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	0	2	16	12	4
22	Gonda-II	SAU	NDUAT, Ayodhya	1	0	1	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	9	7
23	Ghazipur-II	SAU	NDUAT, Ayodhya	1	1	0	6	6	0	1	0	1	1	0	1	1	0	1	1	1	0	1	0	1	2	2	0	2	0	2	16	10	6
24	Shravasti	SAU	NDUAT, Ayodhya	1	0	1	6	6	0	1	0	1	1	1	0	1	0	1	1	0	1	1	0	1	2	1	1	2	0	2	16	8	8
25	Azamgarh-II	SAU	NDUAT, Ayodhya	1	0	1	6	4	2	1	1	0	1	0	1	1	0	1	1	0	1	1	0	1	2	1	1	2	0	2	16	6	10
26	Jhansi	SAU	BUAT, Banda	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	1	1	16	12	4
27	Mahoba	SAU	BUAT, Banda	1	1	0	6	3	3	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	2	0	2	1	1	16	11	5
28	Hamirpur	SAU	BUAT, Banda	1	1	0	6	6	0	1	1	0	1	0	1	1	1	0	1	1	0	1	1	0	2	2	0	2	0	2	16	13	3
29	Jalaun	SAU	BUAT, Banda	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
30	Lalitpur	SAU	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	SAU	BUAT, Banda	1	1	0	6	4	2	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	2	0	2	2	0	16	13	3
32	Prayagraj-II	SAU	BUAT, Banda	1	0	1	6	1	5	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	1	1	16	2	14
33	Raebareli-I	SAU	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
34	Fatehpur	SAU	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	13	3
35	Aligarh	SAU	CSAUAT, Kanpur	1	1	0	6	6	0	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	1	1	16	12	4
36	Kannauj	SAU	CSAUAT, Kanpur	1	1	0	6	7	-1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	14	2

S. No.	Name of KVK	KVK Category	Name of the Host Organization	Head			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
37	Etawah	SAU	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	SAU	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
39	Kanpur Dehat	SAU	CSAUAT, Kanpur	1	0	1	6	6	0	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	12	4
40	Firozabad	SAU	CSAUAT, Kanpur	1	0	1	6	5	1	1	0	1	1	1	0	1	0	1	1	0	1	1	1	0	2	1	1	2	2	0	16	10	6
41	Lakhimpur Kheri-I	SAU	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	1	1	2	2	0	16	9	7
42	Farrukhabad	SAU	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	0	2	2	0	2	2	0	16	11	5
43	Hardoi-I	SAU	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
44	Mahamaya Nagar	SAU	CSAUAT, Kanpur	1	1	0	6	5	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	12	4
45	Kasganj	SAU	CSAUAT, Kanpur	1	1	0	6	1	5	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	2	2	0	2	2	0	16	8	8
46	Raebareli-II	SAU	CSAUAT, Kanpur	1	0	1	6	3	3	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	2	0	2	2	0	2	16	3	13
47	Auraiya	SAU	CSAUAT, Kanpur	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	1	1	16	10	6
48	Mathura	SAU	DUVASU, Mathura	1	0	1	6	3	3	1	1	0	1	1	0	1	0	1	1	0	1	1	1	0	2	1	1	2	2	0	16	9	7
49	Bijnor	SAU	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	1	1	16	11	5
50	Rampur	SAU	SVPUA&T,Meerut	1	0	1	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	1	1	2	1	1	16	12	4
51	Budaun-I	SAU	SVPUA&T,Meerut	1	1	0	6	5	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	1	1	2	1	1	16	12	4
52	Saharanpur	SAU	SVPUA&T,Meerut	1	0	1	6	6	0	1	1	0	1	1	0	1	0	1	1	1	0	1	1	0	2	1	1	2	1	1	16	12	4
53	Ghaziabad	SAU	SVPUA&T,Meerut	1	0	1	6	5	1	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	2	1	1	2	2	0	16	11	5
54	Shahjahanpur	SAU	SVPUA&T,Meerut	1	0	1	6	6	0	1	1	0	1	1	0	1	1	0	1	0	1	1	1	0	2	1	1	2	1	1	16	12	4
55	Meerut	SAU	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
56	Muzaffarnagar-I	SAU	SVPUA&T,Meerut	1	0	1	6	3	3	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	2	0	2	2	1	1	16	6	10
57	Pilibhit	SAU	SVPUA&T,Meerut	1	0	1	6	5	1	1	0	1	1	1	0	1	0	1	1	1	0	1	1	0	2	0	2	2	1	1	16	10	6
58	Baghpat	SAU	SVPUA&T,Meerut	1	1	0	6	5	1	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	1	1	2	1	1	16	11	5
59	Moradabad-I	SAU	SVPUA&T,Meerut	1	1	0	6	6	0	1	1	0	1	0	1	1	0	1	1	1	0	1	1	0	2	1	1	2	1	1	16	12	4
60	Gautam Budha Nagar	SAU	SVPUA&T,Meerut	1	1	0	6	4	2	1	1	0	1	1	0	1	1	0	1	0	1	1	1	0	2	1	1	2	1	1	16	11	5
61	Bulandshahr	SAU	SVPUA&T,Meerut	1	1	0	6	5	1	1	0	1	1	1	0	1	1	0	1	1	0	1	0	1	2	1	1	2	1	1	16	11	5
62	Shamli	SAU	SVPUA&T,Meerut	1	0	1	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	9	7
63	Sambhal	SAU	SVPUA&T,Meerut	1	0	1	6	4	2	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	0	2	2	1	1	16	7	9
64	Badaun-II	SAU	SVPUA&T,Meerut	1	0	1	6	6	0	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	1	1	16	10	6
65	Amroha	SAU	SVPUA&T,Meerut	1	0	1	6	5	1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	1	1	16	9	7
66	Hapur	SAU	SVPUA&T,Meerut	1	1	0	6	6	0	1	1	0	1	1	0	1	0	1	1	0	1	1	0	1	2	1	1	2	1	1	16	11	5
67	Muzaffarnagar-II	SAU	SVPUA&T,Meerut	1	0	1	6	6	0	1	1	0	1	1	0	1	1	0	1	0	1	1	0	1	2	1	1	2	1	1	16	11	5
68	Moradabad-II	SAU	SVPUA&T,Meerut	1	0	1	6	5	1	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	0	2	2	1	1	16	8	8
69	Bareilly	ICAR	ICAR-IVRI, Bareilly	1	0	1	6	3	3	1	1	0	1	0	1	1	0	1	1	0	1	1	1	0	2	1	1	2	1	1	16	8	8
70	Lucknow	ICAR	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
71	Lakhimpur Kheri-II	ICAR	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
72	Kushinagar	ICAR	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
73	Sant Ravidas Nagar	ICAR	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	1	1	2	0	2	16	9	7
74	Deoria	ICAR	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
75	Hardoi-II	ICAR	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
76	Mirzapur	CU	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
77	Sultanpur-I	NGO	KNMT, Sultanpur	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

S. No.	Name of KVK	KVK Category	Name of the Host Organization	Head			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
78	Etah	NGO	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
79	Gonda-I	NGO	DRI, New Delhi	1	1	0	6	6	0	1	0	1	1	1	0	1	2	0	1	1	0	1	1	0	2	1	1	2	3	0	16	16	0
80	Chitrakoot	NGO	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	4	0	16	14	2
81	Allahabad	NGO	SHUATS, Prayagraj	1	1	0	6	6	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	2	1	1	2	1	1	16	14	2
82	Pratapgarh	NGO	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
83	Unnao	NGO	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
84	Ghazipur-I	NGO	DCA, Ghazipur	1	0	1	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	14	2
85	Agra	NGO	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
86	Sitapur-I	NGO	MVESS, Lucknow	1	0	1	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	12	4
87	Kaushambi	NGO	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	1	1	16	15	1
88	Sitapur-II	NGO	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
89	Gorakhpur-II	NGO	GGSS, Gorakhpur	1	0	1	6	5	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	2	2	0	2	2	0	16	13	3
			Total	**89**	**56**	**33**	**534**	**429**	**105**	**89**	**53**	**36**	**89**	**59**	**30**	**89**	**38**	**52**	**89**	**54**	**35**	**89**	**64**	**25**	**178**	**123**	**55**	**178**	**111**	**70**	**1424**	**987**	**437**

Annex-VI

Detail address list of KVKs (Utttar Pradesh)

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17	Dr. Ram Jeet Head KVK Krishi Vigyan Kendra, C/o Maha Maya College of Agri Engg. & Tech., Akbarpur, Distt. Ambedkar Nagar (U.P.) **Email:** pckvkambedkarnagar@gmail.com **Mobile:** 9918622745	**23**	Dr. R.C. Verma Head KVK Krishi Vigyan Kendra-II, Village-Ankushapur, Block Karanda, Tehsil-Ghazipur, Distt. Ghazipur **Email:** drssingh07@gmail.com **Mobile:** 9411320383
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19	Dr. Om Prakash Head KVK Krishi Vigyan Kendra-II, Vill. Maheba Nankar, Block & Tehsil-Manakpur, Distt. Gonda (U.P.) **Email:** kvkmankapurgonda@gmail.com, vermaomprakash2012@gmail.com **Mobile:** 9452489954	**25**	Dr. R.K. Singh Head KVK Krishi Vigyan Kendra-II Rajkiya Krishi Parikshetra, village-Ledoura, Tehsil-Buddhanpur, District-**Azamagarh** (U.P.) Email: kvkazamgarh2@gmail.com **Mobile:** 9452990600 /8318995027
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28	Dr. Mohammad Mustafa Head KVK Krishi Vigyan Kendra, Govt. Agriculture Farm Kurara, Distt. Hamirpur-210301 **Email:** kvkhamirpur@gmail.com **Mobile:** 9755362641	**32**	Dr Maheshwaree Prasad Singh SMS (In-charge) KVK Krishi Vigyan Kendra-II Prayagraj, Village and post- Chhata, District- Prayagraj PIN 212507 (U.P.) **Email:** kvkprayagraj2@gmail.com **Mobile:** 9451367358
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33	Dr. K. K. Singh Head KVK Krishi Vigyan Kendra, Dariapur, P.O., Munshiganj, Distt. Raebareli-29405 (U.P.) **Email:** kvk.raebareli1984@gmail.com, kksingh73@yahoo.com **Mobile:** 9415937398	**36**	Dr. Mrityunjai Singh Head KVK Krishi Vigyan Kendra, Dr. B.R. Ambedkar Agricultural Engineering College Farm, Distt. Etawah-206 001 **Email:** pckvketawah@gmail.com **Mobile:** 9415154822 / 8874173999
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39	Dr. Tej Prakash Head KVK Krishi Vigyan Kendra, Hazaratpur, P.O. Ussain, Distt. Firozabad-283103 (U.P.) **Email:** gbnagarkvk@gmail.com, mayankrai71@gmail.com **Mobile:** 9412527056	**44**	Dr. Ram Palat Head KVK Krishi Vigyan Kendra, O/o. Dy. Director Agriculture, Aligarh Road, Hathras (Maha Maya Nagar) – 204101 (U.P.) **Email:** kvkmahamayanagar@gmail.com **Mobile:** 9450812571
40	Dr. Santosh Kumar Vishwakarma Head KVK Krishi Vigyan Kendra, Chandan Chauki, PO Gola, Tehsil Paliya, Distt. Lakhimpur Kheri-262802 (U.P.) **Email:** pckvklmp@gmail.com **Mobile:** 9415716654 / 7991351971	**45**	Dr. Ashok Kumar Singh Head KVK Krishi Vigyan Kendra, Rajkiya Krishi Prakshetra, Block-Mohanpura, Tehsil-Kasganj, Distt. Kasganj-207401 **Email:** kvkkasganj@gmail.com **Mobile:** 9411818571 / 7217236838
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