

Farm science centre : Lighthouse of agricultural development

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Another name of farm science centre is Krishi Vigyan Kendra (KVK). Agriculture is the base of our country's economy, livelihood and culture. Our country will have progress when farmers of our country will progress in their profession, because, majority of our population are engaged in agriculture. Therefore, it is needed to equip the farmers by modern scientific technologies. Technologies are generated in research centre(s), but does not reaching to its ultimate users in a systematic way, in a regular basis, in interpreted way and in acceptable form. In this background, previously, central govt., state govt. had taken several measures to disseminate the technologies properly to farmers; even farmers themselves had also tried to update their farming, though there was a wide gap. Therefore, there was a need for an institution(s) which will act as a training centre as well as an agricultural knowledge centre(s) which knows how to transfer the technologies to grass root level, how to act as a source and compile feedback information for technology refinement and will help to build up the confidence in the farming community. Introduction of KVK in 1974 had brought a revolutionary change in Indian agricultural extension system and it has abled to remove the gap upto a considerable extent.

History : The Education Commission (1964-66) recommended that a vigorous effort be made to establish specialized institution (s) to provide vocational education in agriculture and allied fields at the pre and post-matriculate levels to cater the training needs of a large number of boys and girls coming from rural areas. The Commission, further, suggested that such institutions be named as 'Agricultural Polytechnics'. The recommendation of the Commission was thoroughly discussed during 1966-72 by the Ministry of Education, Ministry of Agriculture, Planning Commission, Indian Council of Agricultural Research (ICAR) and other allied institutions. In this regard, in 1973, a committee was constituted which was headed by Dr. Mohan Singh Mehta, appointed by ICAR for analyzing the overall situation and to judge the feasibility of establishing such institutions.

Here, the idea of establishment of Farm Science Centre (Krishi Vigyan Kendra) was evolved. On the basis of the report submitted by the Committee, finally, the ICAR mooted the idea of establishing Krishi Yigyan Kendra (Agricultural Science Centre) as innovative institutions of imparting vocational training to the practicing farmers, school drop-outs and field level extension functionaries. The first KVK, on a pilot basis, was established in 1974 (on dated 21.03.1974) at Pondicherry under the administrative control of the Tamil Nadu Agricultural University, Coimbatore. It was decided to have Krishi Vigyan Kendras (KVKs) as farm science centres for speedy transfer of technology to the farmers' fields. Krishi Vigyan Kendra (KVK) is a noble concept developed by ICAR which was rest upon a solid base of transfer of technology from laboratory to farmers' fields with respect to Agriculture, Horticulture, Animal Husbandry, Floriculture, Apiculture, Mushroom cultivation, poultry farming and other allied fields.

Mandates of KVK :

- Conducting "on farm testing" for identifying technologies.
- Organizing training to update the extension personnel.
- Organizing short and long term training courses for farmers.
- Organizing Front Line Demonstrations (FLDs) on various crops.

Broad objectives to achieve the mandates :

- To demonstrate promptly the latest agricultural technologies to the farmers.
- To test and verify the technologies in the socio-economic conditions of the farmers.
- To impart trainings to the practicing farmers.
- To back up district line departments with training and communication supports.

Objectives of KVK :

- Planning and conducting survey in operational area to prepare the resource inventory.
- Planning and conducting need based short and

long duration training courses.

- Developing and organizing non-formal educational programmes.
- Organizing farm science clubs, both in rural schools and in villages.
- Developing and maintaining campus farms and demonstration units on scientific lines.
- Providing practical facilities to the teachers of the higher secondary schools.
- Imparting some general education to rural illiterate and school drop outs.
- Providing added training facilities in the areas for home making and nutrition education.
- Gradually enlarging the training facilities to encompass other important areas.
- Implementing all such schemes of the ICAR and other related organizations.

Special features of KVK :

- The training courses should be relevant with trainees' need.
- For larger participation, a large number of short courses should be introduced.
- To provide proper facilities to the trainers for

proper dissemination of technologies.

- The KVK would have no uniform syllabus.
- Training courses should motivate practicing farmers to adopt modern technologies.

Activities of KVK :

- On -farm testing to identify the location specific agricultural technologies.
- Frontline demonstrations to establish its production potentials.
- To work as resource and knowledge centre of agricultural technologies.
- Seeds and planting materials produced by the KVKs are provided to the farmers.

Organizational set-up of KVK :

(1) The project is sponsored by the ICAR and implemented by Research Institute, State Agricultural Universities (SAUs), NGOs and State Department of Agriculture. In selecting host institutions preference is given to institutions/ agencies having agriculture base and experience of rural development and training. (2) The KVK is headed by a senior scientist of the rank of an Associate Professor designated as Programme Co-ordinator from background field of Agricultural

Table 1 : States/UTs- wise numbers of KVK

Sr. No.	State/UT	No.	Sr. No.	State/UT	No.	Sr. No.	State/UT	No.	Sr. No.	State/UT	No.
	Zone-I	70	9.	Jharkhand	24		Zone -IV	81	24	M.P.	47
1.	J&K	19		Zone-III	78	18.	U.P.	68	25	C.S.	20
2.	Punjab	20	10.	Skkim	4	19.	Uttarakhand	13	26	Odisha	33
3.	Haryana	18	11.	Assam	25		Zone-V	78		Zone-VIII	81
4.	Delhi	1	12.	Arunachal Pradesh	14	20	A.P. & Telengana	34	27	Goa	2
5.	H.P.	12	13.	Nagaland	9	21	Maharashtra	44	28	Karnataka	31
	Zone-II	83	14.	Manipur	9		Zone-VI	70	29	Kerala	14
6.	W.B.	18	15.	Mizoram	8	22	Raiasthan	42	30	T.N.	30
7.	A&N Islands	3	16.	Tripura	4	23	Gujarat	28	31	Pondichhery	3
8.	Bihar	38	17.	Meghalaya	5		Zone-VII	100	32	Lakshadweep	1
Total No. KVK=641											

Table 2 : Establishment of KVKs in different plan periods

FYP Plans	Duration	Year of approval	No. of KVKs established	Cumulative total
Fourth five year plan	1969-1974	1974	1	1
Fifth five year plan	1974-1978	1976-77	18	19
Rolling plan	1979-1980	1979	12	31
Sixth five year plan	1980-1985	1981 (14),1984 (44)	58	89
Seventh five year plan	1985-1990		20	109
Eighth five year plan	1992-1997	1992-93 (74), 1994-97(78)	152	261
Ninth five year plan	1997-2002		29	290
Tenth five year plan	2002-2007		261	551
Eleventh five year plan	2007-2012		49	600
Twelfth five year plan	2012-2017		41	641

Extension and Agronomy. The head is supported by the scientists as Training Associate in field of Extension Education, Agronomy, Horticulture, Home Science, Animal Science, Agricultural Engineering, Soil Science, Fisheries, Plant Protection etc. (according to regional requirement). The head is also supported with technical staff designated as Training Assistant. (3) The Local Management Committee, which is newly named as Scientific Advisory Committee in each KVK, is an important instrument of management. This committee is devoted to constantly review the progress of the KVK, provide guidance for organizing training programmes and follow up extension activities, whereas possible. This is strong mechanism for functional linkage with other sister organizations/institutions.

Steps to conduct training programme : Training is an important part and tool of dissemination of latest information to the farmers. Generally, the following steps are followed to conduct a training programme successfully.

Planning :

Planning is done by following the steps:

– *Scheduling of training programme:* It is done well in advance with due planning as the concerned scientists prepare the annual calendar of training programmes with fixed dates. This calendar is widely circulated in the district.

– *Job analysis of the participants :* Before starting a training programme participants are asked about their ongoing activities in their farms/villages. Their performance level is also inquired and they are asked as what they want to accomplish during the training course. Extension functionaries are asked about their duties.

– *Trainees analysis :* Knowledge test is done

verbally just before commencement of the training.

– *Training need assessment :* Farmers are asked to discuss among small groups about their training needs just before the start of training.

Preparation :

– *Organization of content :* Course content and syllabus are prepared.

– *Lesson plan :* Lesson plan are prepared well in time and adhered to .

Implementation of training :

– *Conduct of training :* Audio-visual aids are used in conducting of training.

– *Mid review :* Mid review is done as per need.

– *Review and revision of training :* Training contents are revised based on the feedback.

Monitoring and evaluation of syllabus: Post training contacts are made personally during field and village visits and also through feedback by post.

Constraints in KVK activities :

Constraints in designing training programme :

- Skill prioritization not done
- Lesson plan not properly developed
- Teaching materials not properly designed
- Teaching aids not arranged properly.
- Duration not appropriately fixed.
- Same teaching aids used repeatedly

Constraints in conducting training programmes :

– Less skill and more knowledge are generally provided.

- Content not feasible to field situation
- Interactive approach not followed
- Less emphasis on vocational training
- Less no. of entrepreneurial trainer

Table 3 : Criteria for selecting scientists for KVK

Post	Pay band/Pay scale + Grade pay	Age limit	Qualification	
			Essential	Desirable
Programme Co-ordinator	Rs. 37400-67000/- with GP of 9000/- (Pay Band-4)	The candidate must not exceed 45 years of age. Relaxation as per Govt. rule.	Doctoral degrees in any branch of Agriculture / Horticulture/ Animal Science/ Fisheries including relevant basic sciences with 8 year experience in the relevant subject as Scientist/ Lecturer / Extension Specialist or in an equivalent position in the pay band 3 of Rs. 15600-39100 Grade pay of Rs. 5400/Rs. 6000/Rs. 7000/Rs. 8000 having made contribution to research /teaching/Extension Education as evidenced by published work/innovations and impact.	Specialization in implementing extension education programmes
Subject Matter Specialist (SMS)	Rs. 15600-39100 + Grade pay of Rs. 5400/- (Pay Band-3)	18-35 years	Master's degree In Agricultural Science or equivalent qualifications from a recognized university.	a) 2-3 years experience in transfer of technology b) Working knowledge of computer application c) Ph.D. in relevant subject.

- Repetition to same trainees

Socio-psychological constraints in attending KVK training :

- Insufficient to organize people properly during training
- Lack of developing confidence on technology
- No attempt to change the mind set
- Restriction of strong value system
- Prejudice against natural calamities
- Fear of failure of technology

Institutional constraints :

- No interest and sincerity of the scientist
- Scientists not understanding field situations
- Demonstration units not well maintained
- Inadequate extension activities
- Inadequate movement of the scientists
- No timely service and supply

Conclusion : The main purpose of the KYK is imparting learning through “work experience”, where training is an

important part and tool of dissemination of latest information. to the farmers. Multidisciplinary scientists are recruited in KYKs to fulfill the technological requirement of the farmers. It is observed that the KYKs are playing key role in technology transfer (beyond its limitations) and success of those technologies. Considering the importance of the KYKs in rural areas, the govt. should be motivated to establish more number of KYKs, so the farmers will get more confidence in their profession which will ultimately reflect on country’s agricultural production which is the basic need of providing food for ever-increasing population of our country as well as upliftment of farmers socio-economic condition.

(On the occasion of the independence Day speech on 15th August, 2005 the Hon’ble Prime Minister of India announced that there should be one KVK in each of the rural districts of the country)

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