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Dissemination of Groundnut Crop Technologies transferred by Krishi Vigyan Kendra Trained Farmers of Anantapur District of Andhra Pradesh

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Abstract: ***The study was conducted with Krishi Vigyan Kendra trained farmers for dissemination of Ground nut crop technologies transferred to untrained farmers. Exploratory research design was conducted in the investigation and Anantapur district of Andhra Pradesh was purposively selected for conducting the research. A sample of 120 respondents which include 60 trained and 60 untrained farmers from four villages of four mandals were selected randomly. Majority of trained farmers had used 28 technologies transferred to trained farmers in groundnut crop.***

Keywords: Transfer of Technologies, Krishi Vigyan Kendra

1. Introduction

Krishi Vigyan Kendra is one of the major Extension wings established by the ICAR with main objective being the transfer of technology to farmers, farm women and rural youth related to Agriculture, Horticulture, Aquaculture and allied fields.

Technology Transfer' is a systematic process of making farmers 'aware' of a new technological component or system, then creating farmers 'interest' in the new technology so that they can 'evaluate' it within their own farming system and their own agro economic conditions.

In transferring new and science-based technology to farmers, extension system use mass media in the early stage to create farmers awareness and interest. When farmers become interested in new technology, they need more specific in-depth information about the technology so that they can learn how to use it and to evaluate its expected costs and anticipated benefits. At this stage, group methods, including meeting, demonstrations and field days are typically used. These methods are supplemented with in depth brochures that farmers can take home so that they will know how to incorporate the new technology into their farming system. In general, most information about new technology (indigenous/science-based) transfers from farmer to farmer through word-of web-of-mouth informally.

2. Material and Methods

From each of the selected villages 15 trained and 15 untrained farmers were selected randomly for Groundnut crop respectively. Thus, a total of 60 trained and 60 untrained farmers constitute the sample of the study. The data were collected by personal interview method through structured interview schedule.

Table 1

S. No.	*Name of the mandal*	*Name of the village*	*Trained farmers*	*Untrained farmers*	*Total*
1.	Kalyandurgam	Beram palli	15	15	30
2.	Beluguppa	Hanimireddy palli	15	15	30
3.	Bathalapalli	Malyantham	15	15	30
4.	Atmakur	Pathacheruvu	15	15	30
Total			**60**	**60**	**120**

3. Results and Discussion

Technologies transferred by trained farmers on Groundnut crop

On the basis of their extent of transfer on groundnut crop technologies the respondents were classified into three categories based on mean and standard deviation and the results thus obtained were presented and discussed in table 2 & 3 respectively.

Table 2: Distribution of trained farmers based on extent of Groundnut crop technology transferred (n=60)

S. No.	Category	Frequency	Percentage
1.	Least extent	5	8.33
2.	Some extent	44	73.34
3.	Maximum extent	11	18.33
	Total	**60**	**100.00**
		Mean=59.16	**S.D.=6.98**

It could be seen from the table 2 that, 73.34 per cent of the trained farmers had transferred the technologies acquired on groundnut crop to some extent followed by maximum extent (18.33%) and least extent (8.33%).

The probable reason for this trend was that majority of the trained farmers had transferred the groundnut production technologies to some extent might be that, the technologies might be simple, easy to adopt, pressure from the Krishi Vigyan Kendras trainers to transfer these technologies and also the trained farmers had medium social contact with neighbours.

On the other hand, the trained farmers who had dedication and commitment to serve the farming community might had

transferred the technologies to maximum extent. The trained farmers with less social contact were unable to express their knowledge to the fellow farmers and this might have transferred the technologies to least extent. The findings are in conformity with the findings of Singh *et al*. (2008) and Rai and Bhupendra singh (2010).

Groundnut crop technologies transferred by trained farmers

It could be seen from table 3 that cent per cent of the respondents had acquired technologies viz land preparation, optimum time of sowing, seed rate, followed by harvesting (93.33%), varieties like TMV-2 and K-6 adoption, spacing and Ananta groundnut planter (90.00%), deep ploughing (86.66%), border crops and water management (83.33%), seed treatment (81.66%), seed dormancy (80.00%), trap crops and aflotoxin residues (75.00%), fertilizer recommendation (70.00%), inter cropping (66.66%), gypsum recommendation (58.33%), crop rotation (53.33%), poison bait for spodoptera (38.33%), pheromone traps (25.00%), neem seed kernel extract (20.00%), Trichderma viridae (13.33%) were acquired by the trained farmers.

Very few trained farmers have acquired chemical control (10.00%), Zinc sulphate recommendation, weed management- pre and post emergence and post harvest technology (6.66%) and (5.00%) of them had acquisition in ferrous sulphate recommendation.

The probable reason for cent per cent transfer of groundnut technologies like land preparation, optimum time of sowing, seed rate might be that they may be fundamental and basic operations which the farmers practice in cultivation, when not adopted, might lead to drastic changes in productivity levels.

The probable reason for decrease in transfer of technologies by trained farmers might be that the technologies viz. harvesting, varieties like TMV-2 and K-6 adoption, spacing, Ananta groundnut planter, deep ploughing, border crops, water management, seed treatment with mancozeb 3g/kg, seed dormancy, trap crops, aflotoxin residues, fertilizer recommendation, inter cropping, gypsum recommendation, crop rotation, Neem seed kernel extract, poison bait for spodoptera, pheromone traps, Trichoderma viridae, chemical control, zinc sulphate recommendation, weed management- pre and post emergence and post harvest technology, ferrous sulphate recommendation etc. require technical skills and experience in following the technologies by the trained farmers. The gap in the technical skills and non-adoption of these technologies might had correspondingly reduced the transfer of technologies by the trained farmers to untrained farmers.

Table 3: Groundnut crop technologies transferred by trained farmers

(n=60)

S. No.	*Statements*	*Frequency*	*Percentage*
1	**Optimum time of sowing** (Kharif:June-July31^{st,} Rabi: November- December 15th)	60	100.00
2	**Varieties (**TMV-2 and K-6)	54	90.00
3	**Land preparation** (2-3 plough with blade harrow)	60	100.00
4	**Deep ploughing** (in summer exposes root grubs and pupae of red hairy caterpillar and spodoptera to natural enemies and abiotic factors)	52	86.66
5	**Seed treatment** (2ml Imidacloroprid + M-45-3gms or 2ml Imidacloroprid or 6.5ml chlorpyriphos)	49	81.66
6	**Seed dormancy** (soaking in 5ml Etheral in 10lit of water)	48	80.00
7	**Seed rate** (Kharif-60kgs/acre, Rabi-75kgs/acre)	60	100.00
8	**Spacing** (Kharif-30×10 cm, Rabi-22.5×10cm)	54	90.00
9	**Ananta groundnut planter** (for sowing)	54	90.00
10	**Fertilizer recommendation** (Kharif:NPK:8-16-20 kg/acre, Rabi: NPK: 12-16-20 kg/acre) 4kg-30DAS	42	70.00
11	**Gypsum**-(200kg/acre along with FYM 5t/ha)	35	58.33
12	**Zinc sulphate** (Basal dose @ 20kg / acre or Foliar spray @2kg/lit of water)	4	6.66
13	**Ferrous Sulphate** (Annabedhi 1kg+ 200gms Citric acid in 200 lit)	3	5.00
14	**Weed management - pre emergence-** (Pendimethalin30%@ 1.3-1.6 l/acre, butachlor50%@ 1.25-1.5 l/acre in 200 lit water)	4	6.66
15	**Weed management - Post emergence-** Imajithphir10%-300ml or Quizylophopethyl 5%400ml/200lit water	4	6.66
16	**Water management**- (No.of irrigation-8-9 times or sprinkler irrigation)	50	83.33
17	**Border crop** (with Sorghum/Bajra)	50	83.33
18	**Trap crop** (with sunflower/castor/ jowar)	47	75.00
19	**Intercropping** (Groundnut + redgram/castor- 7:1/11:1, ground nut + bajra-6:2)	40	66.66
20	**Crop rotation** (with cereals reduces the incidence of diseases)	32	53.33
21	**Aflotoxins residues** (the export potential of ground nut)	45	75.00
22	**Chemical control** (sucking pests: Dimethoate, monocrotophos /Methyl-o-demeton; defoliators: Methyl parathion/ quinolphos)	6	10.00
23	**Neem seed kernel extract** (5% solution)	12	20.00
24	**Poison bait for spodoptera** (ricehusk-10kg + jaggery-1kg + quinolphos-1l)	23	38.33
25	**Pheromone traps**-4/acre	15	25.00
26	**Harvesting (**Guntaka/ Handpicking**)**	56	93.33
27	**Trichoderma viridae** (2kg + FYM 90kg + Neem powder 10 kg)	8	13.33
28	**Post harvest technology** (storming pods-Neem oil/ pongamia oil spray at10% concentrate)	4	6.66

4. Conclusion

The results of study indicated that the majority of the trained farmers had transferred the technologies acquired on groundnut crop to some extent followed by maximum extent and least extent. The trained farmers gave the following suggestions to overcome the problems. To depend on trained farmers for scientific technologies instead of input dealers, involvement in extension activities by the untrained farmers , creating awareness among the untrained farmers, availability of critical inputs to the trained farmers, provision of education to the untrained farmers, co-operative farming and participation of untrained farmers in farm charcha mandals.

References

[1] Singh *et al*. (2008) revealed that dissemination of technologies in telephonic helpline services was used for forecast, soil testing, seed sowing and improved varieties.

[2] Shabana and Bhupender (2010) revealed that lecture method was mostly used by the KVK trainers to impart training to the farm women, as (75.03%), expressed by KVK trainer. Second rank was given to method demonstration (64.71%), followed by third to rank result demonstration. Fourth rank was given to “office calls” followed by farm and home visit and exhibition.