RESULT DEMONSTRATION—PURPOSE, PROCESS AND TECHNIQUE—I

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Result Demonstration has been recognised over the years as one of the important extension methods and occupies a very important position in Extension Programme. As an educational tool it is used to demonstrate the tested procedures and techniques, their applicability to local conditions, their superiority over local practices and techniques and to help the farmers to learn by seeing and doing. In fact, the popular beginning of Result Demonstration as a means of teaching farmers new and improved practices in 1903, when Seaman A. Knapp conducted his famous Cotton Boll Weevil demonstrations near Terrel, Texas and their tremedous success, helped in establishing the Cooperative Extension Service in U.S.A.[1]

In India the importance of Result Demonstration was realised as early as 1928 when the Royal Commission on Agriculture emphatically stated that "in order that agricultural researches may be of use to the cultivator their results must be given to him in a form in which they become a part of his ordinary practices. In a country where illiteracy is wide spread, as it is in India, ocular demonstration is the best method for convincing the cultivating classes the advantages of agricultural improvement".[2]

Since then and specially after the start of Community Development Programme and Extension Service, Result Demonstrations have become a significant part of the Village Level Workers' (V.L.Ws) work. Even in the recently started Intensive Agricultural District Proggramme (I.A.D.P.), Result Demonstrations in shape of composite demonstrations have been emphasised as one of the main activities of this programme. This is clearly established by the fact that during the year 1963-64 alone, 12,260 demonstrations in "*Kharif*" and 11,009 trations in "*Rabi*" seasons were cond I.A.D.P. districts. Though importan Result Demonstration has been widely nised and a very large number of such d trations has been conducted in Com Development Blocks and I.A.D.P. d there seems to be still a wide gap b available scientific knowledge in agri and its application in farmers' fields reasons for ineffectiveness of Result De tration need immediate attention.

There are many studies and publica on different aspects of Result Demonstr but most of these studies and publications emphasised on its effectiveness and comp with other extension methods. Some of publications also deal with how to co demonstrations but the real basis for content seems to be more common sen subjective rather than empirical.[3]

It is, necessary to know as to how f purpose of Result Demonstration, its p and techniques are clearly understood an lowed by extension workers and farmers. present investigation was an attempt i direction. Its main objectives were :-

1. To study the importance and pur Result Demonstration as held b V.L.Ws and the demonstrating f

2. To analyse critically the proce technique followed in conduct Result Demonstration and loc weak spots, if any.

Area of Research and Methodol

The study was conducted in thre ty Development blocks of Delhi Territory, were found to be comparatively rural haracter with more emphasis on agricul- programmes than the other blocks.

he study included only the Result Demons- ns conducted on wheat and gram during 64. In all 24 V.L.Ws, eight from each e three selected blocks were selected by om sampling technique from among those had at least one year experience in the block.

or selection of demonstrations a list of e Result Demonstrations on wheat and for the year 1963-64 conducted in these s was prepared from the areas of each . From this list two Result Demons- ns per V.L.W., one on wheat and the on gram were selected randomly. Thus sult Demonstrations, 24 on wheat and 24 am along with all the 48 demonstrating rs were finally included in this study. ata for the study were collected mainly gh schedules by personal interview tech- Besides, field observations, informal ssions with the V.L.Ws and the demons- g farmers and the secondary sources of like demonstration register of the block instructions and circulars issued from to time were also used as additional es of data.

Findings

he findings of the study are presented under llowing subheads :—

The understanding of Result Demonstra- tion as an important extension method by the V L.Ws., and the demonstrating farmers.

Their understanding of the nature and purpose for which the wheat and gram demonstrations were laid during 1963-64.

Their understanding of the process i.e. steps involved in conducting a Result Demonstration.

e understanding of Result Demonstration important extension method.

may be mentioned here that out of 24 V.L.Ws selected for this study one had subsequently resigned and the other one was sick at the time of interview. The data could, therefore, be collected from 22 V.L.Ws only. The number of demonstrating farmers and the demonstrations was also consequently reduced from 48 to 44 each.

All the 22 village level workers and 85 per cent of the demonstrating farmers considered Result Demonstration as the most important extension method. The rest of the 15 per cent of the demonstrating farmers did not consider it as an important method and the reasons given by them were not that they thought that there was something wrong with Result Demonstration itself as an important extenion method, but because of their lack of confidence in extension worker, who conducted these demonstrations and their professional competency which is evident from their statements that "V.L.Ws themselves do not know anything, so what will they demonstrate to us". 'Fear of loss' and 'inviting troubles' were other reasons given by them.

2. Understanding of the purpose of Result Demonstration.

All the wheat and gram Result Demonstrations conducted during '*Rabi*' season of 1963-64 were of composite type. The package of practices recommended for composite demonstration on wheat consisted of eight ploughings, soil treatment with 10 per cent B.H.C. @ 7 kg. per acre, 28 kg. of single superphosphate to be drilled before sowing and 48 kg. of ammonium sulphate or calcuium ammonium nitrate to be applied in two doses, one half before sowing and the other half later on. The wheat variety to be used was C.281 at the rate of 35 kg. per acre and to be sown in lines with nine inches distance between two rows and pre-treatement with Agrosan GN @ one 'Chhatak' (58 Gram) per maund (37½ kg.). In all four irrigations were reommended and 2,4-D @ 0.75 kg. wettable powder per acre was to be used for weed control.

The recommendations for composite demonstration on gram were one or two ploughings, 42 kg. of single superphosphate by drilling method, 12 kg. of calcium ammonium nitrate by broadcasting method (for half acre plot) and T_1 gram *variety* at the rate of 16 kg. per

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acre, sown in line with 12 inches line to line distance. Irrigation was to be given as per need and facilities available. Topping was recommended before flowering.

It was against these recommendations that the understanding of the purpose of these demonstrations of the V.L.Ws and the demonstrating farmers was judged.

a. V.L.Ws' understanding—The understanding of the V.L.Ws regardiug 22 composite demonstrations on wheat and gram each conducted during 1963-64 is presented in Table 1 below.

TABLE 1

Understanding of the V.L.Ws (22)

Sl. No.	Nature of Result Demonstration	Number of V.L.Ws	
		Wheat	Gram
1.	Varietal	7	9
2.	Varietal cum fertilizer	6	3
3.	Composite	8	10
4.	Not clear	1	—

It is obvious from this table that though both the wheat and gram demonstrations were composite demonstrations having a set of recommendations, the same were understood differently by the village level workers. Seven out of 22 village level workers understood the demonstration on wheat as varietal demonstration, six as varietal cum fertilizer demonstration, eight as composite demonstration and one was not clear about the same. Similar misunderstanding was also observed about the gram demonstrations. When these extension workers themselves, who are change agents, have differential and in many cases incorrect understanding about the same Result Demonstrations already conducted by them, one can very well expect the impact of such demonstrations on farmers.

The reasons for this state of affairs might be that these village level workers either were not properly explained about the nature and purpose of these demonstrations or t not understand and carry out the instructions given about these demons

b. Demonstrating farmers' understandi

For the success of a Result Demo it is important that the purpose of the tration is understood correctly not the V.L.Ws but also by the farmer table below shows the understanding demonstrating farmers.

TABLE 2

Understanding of the Demonstrating Farmers

Sl. No.	Purpose stated by ihe demonstraing farmers	No. of fa
		Wheat 22
1.	To see if the improved seed increases the yield and also to multiply the same	7
2.	To show the use of good seed and fertilizer	3
5.	To show the methods which increase the yield	7
4.	To get higher yield	5

It is clear from this table that like the purpose of the wheat and gram Demonstrations (composite) was und differently and incorrectly by the demon farmers. This being so, it could e understood what impact these demons will have on them.

Further investigations to find out the replies of V.L.Ws were similar or d to those of their corresponding farm cated that 56 percent of the farmers h rent understanding of the same c demonstration than that of their corre V.L.Ws. This is very well illustrated paring the reply of a V.L.W to th corresponding demonstrating farme the purpose of the demonstration, to the V.L.W. was "to compare the variety with the local one" the corre

mer stated that the purpose was "to show effect of timely application of fertilizer and gation". It may also be of some interest mention here that where the V.L.Ws and mers differed in the understanding of the rpose of the demonstration, it was not always t the V.L.Ws had better understanding. In , in 27 per cent of the cases the farmers better understanding than their corresding V.L.Ws.

Reasons to act as Demonstrating farmers.

The reasons given by the demonstrating mers regarding their acceptance to act as monstrators are also worth mentioning e. Table 3 below presents their reasons ich explain how the purpose of the demonsion was not clearly understood by the monstrating farmers.

TABLE 3

Reasons* to act as demonstrating Farmers

Reasons stated	No. of Farmers			
	Wheat (22)	Gram (22)	Total (44)	Percentage
To get high yield	5	4	9	24.5
To try new seed	—	7	7	15.9
To learn new methods	9	5	14	31.8
To avail of free seed and fertilizer;	11	9	20	45.4
To help the V.L.Ws in his duty and come in contact with officials	3	3	6	13.6

*One respondent gave more than one reason.

It is interesting to note that 45.4 per cent of e demonstrating farmers agreed to act as monstrators in order 'to avail of free seed d fertilizer' and 13.6 per cent for 'helping e village level workers in thier duty and to me in contact with officials.

This finding is also supported by Dubey, uttan and Gallup who reported that in several cases both the staff responsible and the people to be benefitted hardly know the exact item or practices being demonstrated and the purpose of the demonstration. Studies conducted at the Orientation and Study Centres Bakshi Ka Talab (1960-61) and Rajendra Nagar (1960-61) also pointed out that many demonstrations were laid down without purpose.

3. Process of Result Demonstration.

The knowledge and understanding of the process i.e. steps involved in conducting a Result Demonstration are other important requirements for its success. It was, therefore, considered necessary to investigate the knowledge and understanding of the V.L.Ws regarding these steps. The necessary steps in conducting a Result Demonstration maybe arranged into three stages. These stages and steps were developed after reviewing about 25 studies and publications on the subject available in India and abroad. The steps so listed on the basis of these studies and publications were circulated to 50 experts closely connected with demonstration work, such as Professors of Agricultural Extension, District Agricultural Officers, Agricultural Extension Officers (block), Subject matter Specialists and

Block Development Officers and were finalized and arranged after incorporating their suggestions.

I. Planning stage :—It consists of the steps required before actual starting of the Result Demonstration. They are :

1. Determining need for the Result Demonstration and past experience of the farmers.
2. Deciding upon the nature and purpose of Result Demonstration.
3. Deciding upon the number and type of Result Demonstration.
4. Preparation and use of written plan and calendar of activities.
5. Training of the extension workers on the purpose, process, technical recommendations and techniqe of Result Demonstration.
6. Checking up equipments and supplies and making them available.
7. Selection of the demonstrating farmer.
8. Making him understand the purpose of Result Demonstration.
9. Selecting the site.
10. Informing potential adopters and village leaders about date, time and place of conducting the demonstration.

II. Execution stage.

1. Laying out the Result Demonstration—design, demarcation and size etc.
2. Carrying out of the crop operations by demonstrating farmer and the extension worker (V.L.W.).
3. Keeping accurate records.
4. Supervision by extension worker (V.L.W.) extension officer (A.E.O.) and others.
5. Teaching during demonstration—through field days, farmers visits etc.
6. Taking yields.
7. Evaluation.
8. Establishing proof of net gain.

III. Post Demonstration stage—(Follow

1. Communicating the result of d tration, through various media to farmers.
2. Persuading other farmers, local to adopt the practices demonstrat collecting promises for next crop
3. Arranging for services and suppl advance as per promises received.
4. Reminding prospective adopters, the start of season, and helping adopt the practices through te advice and necessary supplies.
5. Completion of the project when of the farmers have adopted the pra

It was against this model of the proc Result Demonstration that the knowledg understanding of the V.L.Ws were invest and the findings have ben summarized in 4 below.

TABLE 4

Steps in conducting a Result Demonstration as ind by V.L.Ws (22)

Sl. No.	*Steps*
1.	Selecting farmer
2.	Making him understand the purpose
3.	Selecting site
4.	Checking up equipment and supplies
5.	Laying out the Result Demonstration
6.	Carrying out crop operation
7.	Supervising
8.	Teaching during demonstrations
9.	Taking yields
10.	Establishing proof of net gain
11.	Giving marketing advice
12.	Follow up
13.	Keeping accurate records

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The table reveals that only four steps, mely, selecting farmer, selecting site, carrying t crop operations and taking yields were own and stated by all the V.L.Ws(22). her steps which are basically educational nature like making farmer understand the rpose (4), teaching during demonstration ough field days and arranging farmers' ts etc. (12), establishing proof of net gain and follow up (14) which are important s are not known and understood by many .Ws. Keeping accurate records is another ortant aspect of demonstration work. But three V.L.Ws mentioned it.

dged against the model described earlier ems that by and large V.L.Ws have very gre or no knowledge about the steps to taken during Planning stage. For instance observed that none of the V.L.Ws ment- ed six important and necessary steps ly determining needs for the Result De- stration and past experience of the farmers, ling upon the nature and purpse of Result onstration, deciding upon the number type of Result Demonstrations, preparation use of written plan and calendar of acti- , training of extension workers, and in- ing potential adopters and village leaders t the date, time and place of conducting esult Demonstration. Perhaps these im- nt steps were not known to the V.L.Ws to the fact that they were not involved in planning stage and the decision on all the rtant steps were taken by higher authori- All that the V.L.Ws were expected to was to carry out the demonstration as per uctions of their superior officers.

Likewise, several of the steps under Exe- on stage have either not been mentioned the V.L.Ws or have been mentioned only a few. For example evaluation has been tioned by none, establishing proof of net by two and keeping accurate records by e V.L.Ws only. Teaching during demons- lon by arranging field days and visits of the ers at appropriate stages of demonstra- is an important and necessary step. But has been mentioned only by 14 out of 22 .Ws.

The understanding of the steps at the Post- onstration stage is all the more discouraging. None of the specific steps indicated under this stage were mentioned by any V.L.W. All that was stated was 'follow-up' and that too only by 14 V.L.Ws.

Another interesting point that emerged from this study was differences among the V.L.Ws regarding sequence of these steps. For instance, 16 out of 22 V.L.Ws considered that selection of farmer should precede the selection of site, whereas the remaining six thought that site selection should precede the selection of farmer. There were differential understanding regarding the sequence of other steps also.

It may be concluded here that even though Result Demonstration was regarded as an important extension method by all V.L.Ws they do not have complete and clear knowledge of the steps involved and the sequence in which these steps have to be followed. Dubey, Suttan and Gallup[4] also arrived at similar conclusions where they stated that advance planning for Result Demonstration is not done properly and steps are not clearly understood and followed.

4. Technique of Result Demonstration

It is not only the knowledge of the steps of Result Demonstration that is important but how they are actually carried out i.e. their technique is more important. It was therefore, considered necessary to investigate further how the V.L.Ws actually carried out and followed these steps. The findings presented here are only with respect to steps mentioned by all or large number of the V.L.Ws. The steps not mentioned by the V.L.Ws or mentioned only by a few of them were not included because when the V.L.Ws were not aware of these steps there was no meaning in asking them toht describe eir technique. The steps included are :

1. Selection of the demonstrating farmer.
2. Selection of site.
3. Carrying out crop operation.
4. Teaching during demonstration.
5. Follow up.

1. Selection of the demonstrating farmer :

The selection of the farmer on whose plot, the Result Demonstration would be laid out is a very important step because it is on him that

ne success of the demonstration will largely epend. He should be willing to try new and nproved agricultural practices, be cooperative, espected and liked by other farmers and has arm conditions similar to other farmers in the illage. The findings below present (a) the riteria of selecting the demonstrating farmers, b) their background (socio-economic status) nd (c) past experiences which will indicate their uitability for demonstration work.

a. Criteria for selecting demonstrating farner :—The findings reveal that the main consideration for selection of the demonstrating armers were : (1) personal characteristics of he farmer like his willingness to co-operate, nterested, educated, hard working, ability to understand instructions and his resourcefulness.

b. Socio-economic status of the farm Table 5 presents the distribution of the according to their Socio-economic st

The table indicates that majority farmers (93.1%) belonged to the medi high socio-economic status group. O out of 44 farmers were selected from low economic status group. In case demonstrating farmer belongs to the status group to which the majority of t mers living in the village belong, it is pe justified to select him. But looking at t of holding which was one of the main c nents of the Socio-economic status it was o ed that in the village where a farmer h more than 15 acres of land was selected monstrating farmer, 65.95 percent of the

TABLE 5

Socio-economic status of the Demonstrating Farmers

Sl. No.	Socio-economte status	No. of farmers		Total; (44)	Perce
		Wheat (22)	Gram (22)		
1.	Low	2	1	3	
2.	Medium	12	11	23	5
3.	High	8	10	18	4

(2) the availibility of plot near road side with irrigation facilities (3) personal reasons like friendship and obligation and non-availability of any other plot. While the first two sets of criteria are justified there is no justification to select the farmers on the basis of friendship or personal obligation and non-availability of plot with any other farmer. Besides, leadership quality and the representative character of the farmer ndo not seem to be taken into co sideration hile selectiwng these farmers.

farmers possessed less than 15 acres o which means the demonstrating farme not a true representative of the major the farmers.

c. Past exepereience : Selection of th farmer year after year for demonstratio might be considered as favouritism by farmers of the village. The data colle this aspect, namely, how often the sa mers wercte seleed is indicated in the below.

TABLE 6

The number of years the same farmers were selected as Demonstrating Farmer

Sl. No.	Number of years	Farmers		Total (44)	Pe
		Wheat (22)	Gram (22)		
1.	One	12	9	21	4
2.	2—4	5	9	14	3
3.	5—7	1	2	3	
4.	8—10	—	2	2	
5.	11 and above	4	—	4	

he cumulative percentage of the demons- ng farmers selected for two or more years inuously is 52.3 In fact 20.5 per cent of were selected from 5 to 11 times. Such a ice of selecting the same farmer year after for demonstration work cannot be consi- a healthy one as it might create unfavour- attitude in the minds of the farmers toward extension worker, extension service and emonstration itself.

urther, data collected regarding the number actices already followed by the demons- g farmers indicated that wheat variety was already in use by 68.0 per cent, ammo- sulphate by 64 per cent, sugnle superphos- by 23 per cent and seed treatment by 22 nt of them. In fact, except three farmers est of the farmers were already using 1 of the recommended practices. This out that not only the same farmers elected year after year but also there was stification for demonstrating these prac- with them. When a farmer is already the recommended practices, the demons- plot does not show any marked diffe- from his own plot and thus the demons- as such does not create any impact.

ese findings are supported by Dubey who reported that many demonstrations conducted on the fields of the well-to-do rogressive farmers who had already seen sults of such practices in the past.

2. Selection of site :—Another essential step of the Result Demonstration is selection of a suitable site with a good location and approachability, irrigation facility and suitable land. The findings of this study indicate that the main criteria for selecting the sites were (1) irrigation facilities, (2) suitability of land for crop, (3) nearness to the village, (4) nearness to the approach road, (5) land being fallow and (6) the farmer offered only this plot. While the first four criteria do meet the requirement of a suitable site the last two are by no means justified. Moreover, criteria like representative character of the site of the conditions under which the practices demonstrated are to be adopted, were not mentioned by any V.L.W.

3. Carrying out crop operations:—One way of ascertaining whether the crop operations were carried out satisfactorily is to find out the knowledge of the V.L.Ws regarding the technical recommendations. The knowledge of the V.L.Ws was judged from the practices they remembered and could state correctly at the time of interview. It was really a surprise to know that 50 per cent of the V.L.Ws. could not state the recommendations without looking into the demonstration register or the instruction sheets, though the interviews were held immediately after the harvest of the demonstration plots. Table 7 below indicates the number of recommended practices on wheat stated correctly by the V.L.Ws.

TABLE 7

No. of practices stated correctly by the V.L.Ws (22)

No. of practices (11) (For wheat)	No. of V.L.Ws	
	By Consulting records	By memory
Two	—	1
Six	1	—
Seven	3	3
Eight	3	4
Nine	2	3
Ten	2	—

Thus, neither the V.L.Ws who replied after consulting the records nor those who replied from their memory could state all the recommended practices correctly. In conclusion it may be said that all the V.L.Ws were not aware of all the recommendations, even though they were supplied with the written instructions. It is therefore, doubtful whether all these recommendations and crop operations were carried out. The findings regarding gram demonstration were more or less on the same pattern.

Another indication of carrying out crop operations satisfactorily is the extent to which recommended practices were actually carried out. Table 8, summarizes the findings on this point.

It is obvious from this table that out of 11 recommended practices as out as per reply of the V.L.Ws. Mar difference in the responses of the the demonstrating farmers raise whether even these practices were carried out and explained to the Such differences were also observed gram demonstration.

TABLE 8

Practices carried out on wheat demonstration

Sl. No.	Practice	Repo V.L.Ws. (22)
1.	Soil treatment	19
2.	Seed treatment	16
3.	Applications of S.S.P. and C.A.N. before sowing	22
4.	Use of calcium ammonium nitrate at first irrigation	22
5.	Use of ammonium sulphate at first irrigation	—
6.	Use of 2, 4-D	8

4. Teaching during demonstration

nisation of field days and visits for or groups of farmers is an important educate the farmers. The informatio extent of teaching organised during tration through field days and farm were, therefore, collected, analysed been presented in table 9.

TABLE 9

Teaching during demonstration.

Sl. No.	Teaching organised;	No. of Demonstration Wheat (22)	Gram* (18)	Total (40)
1.	Through field days	5	3	8
2.	Farmers' visits	5	1	6
3.	Did not arrange field days or farmer's visit	12	14	26

*gram demonstrations were damaged by frost after flowering.

is evident from this table, that field days armers' visits were organised only in 20 t and 15 per cent of the cases respectively 65 per cent cases no efforts were made This is an important step and if no are made to use the Result Demonstra- is an educational tool to educate the s regarding practices demonstrated the urpose of the demonstration is defeated.

Follow up :—The result demonstration eans and not an end in itself. Commu- g the results of successful demonstration, ling other farmers, and local leaders to the practices demonstrated, to enlist who would like to carry out these prac- during next crop season and help them so by giving technical advice and arrang- pplies are important steps to be taken after the demonstration is over. But the finding of this study indicated that the majority of the V.L.Ws considered Result Demonstration as an end in itself and did not follow up. In fact, only 17 per cent of the V.L.Ws indicated that they visited the farmers, after the Result Demonstration was over.

Conclusion

The findings of this study indicate that even though the Result Demonstration is considered as the most important extension method by all the V.L.Ws and 85 percent of the demonstrating farmers included in this study, its purpose and process i.e. necessary steps and their technique are not clearly understood and followed. The study also indicated that even those steps which were mentioned by the V.L.Ws are not properly understood and carried out.

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