SUMMARY AND IMPLICATIONS

New technologies for increasing agricultural production are now becoming available at a much faster rate. But the mechanism for transferring them to the uneducated and small producers does not exist. There is an urgent need for a communication network at the service of poor farmers in our country like the global communication network which makes the latest findings available without delay to research workers in any particular field. It is not only knowledge that is needed but an approach which will be able to supply the right knowledge and tools to the right people at the right time. Agricultural extension is the means by which the department of Agricultural advises and teaches the farmers relevant production technology and keeps in touch with farming conditions and farmers problems and needs. These advising, teaching and informational functions, an extension service can achieve little without effective communication within the service and between extension workers and farmers. But there had been a general feelings among the planners, administrators and extension specialists that existing extension programmes suffer from number of problems related to organisation, coordination, administration and programme implementation. The problems were lack of single direct line of technical support and administrative control, dilution of efforts because of multipurpose role of extension workers, poor accessibility of extension workers to their clients due to large area of operation, inadequate and outdated professional training, lack of properties with research and low morale of extension workers.
4. To study the feedback behaviour of farmers and extension workers.

5. To study the communication and technological profile of contact farmers and the perception of beneficiaries (of different socio-economic status).

The study was conducted in J&K state and purposively two districts were selected for study as Jammu and Udhampur district. From each district two sub-divisions were selected and from every sub-division two zones were selected for study. Then from every zone, circles were selected. From every circle 13 contact and 13 non-contact farmers were randomly selected for study. So by this way the total samples which selected for study were 100 contact farmers and 100 non-contact farmers i.e total number of beneficiaries were 200. Apart from these, certain Agriculture Extension Officers (AREOs) and Junior Agriculture Assistants were also selected for study for noticing the feedback behaviour of (Ext. workers) - i.e., of (AREOs & JAAs).

The data were collected with the help of schedule constructed for these purposes. Some of valid scales as attitude scales of "Likert and Throstone" as combining the weights of Likert and scale values of Throstone were used.

The statistical measures employed for analysing the data were percentage, standard deviation, "t" test, critical ratio, Correlation-Regression, Analysis of Variance, S.S, D.F & "F" value etc.
ATTITUDE OF BENEFICIARIES (CONTACT AND NON-CONTACT)
TOWARDS TRAINING AND VISIT SYSTEM.

The attitude of beneficiaries (contact and non-contact) was found to be neither favourable nor unfavourable. The contact farmers and non-contact were found alike in their attitude towards Training and Visit system. The attitude score attained by the contact non-contact and non-contact farmers was near about 50 percent of the maximum score. Further the attitude of farmers in eight circles of Junior Agriculture Assistants (which were taken under study) were analysed to find the coincidences of attitude of farmers of these circles towards the T&V system. The analysis of variance reported that attitude of the farmers in these selected eight JAA circles ranged from 41.79 percent to 55.31 percent of the maximum score. The findings revealed that the attitude score of the JAA circle number 7, 3 and 2 was comparatively higher from other circles. The other JAA circle number 8, 5 and 6 were also having the significant attitude as compared to circle number 1 and 4. Thus three groups of these circles were made as first group consisted of circle number 7, 3 and 2 (having higher attitude). The second group consisted of JAA circles 8, 5 and 6, and third distinct group consisted of circle number 1 and 4 (which showed all most unfavourable attitude). The farmers of circle number 2, 3 and 7 are located on the road sides and the approach of extension workers is maximum to these circles. It can also be one of the main reason as resultant to that farmers of these circles are much aware.
Variables like knowledge of wheat cultivation, adoption of wheat cultivation, age, education, etc were positively and significantly related with the attitude of contact farmers towards Training and Visit system. The selected variables explained the variation of 28 percent in of contact farmers. Whereas in case of non-contact farmers caste, size of holdings, and adoption of wheat cultivation were positively and significantly correlated with attitude towards Training and Visit system. The selected variables explained the variation of 20 percent in attitude of non-contact farmers.

**IMPACT WITH RESPECT TO KNOWLEDGE OF (T&V) AND ADOPTION OF WHEAT PRODUCTION TECHNOLOGY AMONG THE BENEFICIARIES.**

The findings reported that regarding the farmers' (of 200 respondents) knowledge towards T&V system, different statements viewed differently as the statements number one's mean score was 4.12 followed by the other statements number eight's mean score 3.59, number sixth's mean score 3.63, mean score of third statement 3.40, mean score of the fifth statement 3.44 and of seventh was 3.19, the mean score of statement number 2 was 3.25 which was more than that of the neutral mean score which was 3. But the mean score of the statement number four was 2.68 which was less than that of neutral score.

The farmers opinion regarding the statement ("The transmission of fortnightly message is delivered properly") was
not agreeable; they felt that there is a lacuna in appropriate transmission of fortnightly message. The extension functionaries don't deliver the message in time. Suppose the message for seed treatment (to treat the wheat seed with Bavastin at the rate of 2gm/kg of seed) was given when the thirty percent (wheat) of the area has been sown already and specially this transmission lacuna was observed in most interior circles. But the overall impact of T&V system was observed appropriate as the farmers were having the maximum knowledge.

In case of impact of adoption of wheat cultivation every technological practice was considered appropriate. The mean score of the statement number 1 was found 4.12 followed by the others as statement number 2 was having mean score of 3.76, the mean score of statement number 6 was 3.65, the mean score of the statement number 5 was found 3.34. Third statement's score was 3.31 and the mean score of the statement number 7 and 8 was found 3.16. Regarding to the statement number 4 i.e (recommended use of chemical fertilizer) the mean score was 2.61 which was less than that of neutral score which was 3. But overall the farming community was found to be having better impact regarding the adoption of wheat production technology.

DIFFERENTIAL KNOWLEDGE AND ADOPTION OF WHEAT PRODUCTION TECHNOLOGY AMONG CONTACT AND NON-CONTACT FARMERS.

(a) Average knowledge of recommended practices of wheat cultivation in case of contact farmers was 21.65 out of maximum score 31

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i.e. (approximately) 70 percent of desirable knowledge where as the knowledge of recommended practices of wheat cultivation in case of non-contact farmers was found 18.37 out of maximum score which was 59.25 percent of maximum score. The contact farmers possessed significant higher knowledge than that of non-contact farmers. The two groups of farmers appeared to be significantly different from each other regarding the knowledge of wheat production technology.

The contact farmers as having continue touch with the extension functionary having more awareness than that of non-contact farmers that is because of a crucial parameter the non-contact farmers are somewhat less professional rather than contact farmers they are employed also and the employed person can not meet to the (extension functionary) JAAs on the fixed day.

Further, it was felt desirable to study whether there were significant variations in the knowledge of the farmers of eight JAA circles (which were selected for study) with respect to selected wheat technology.

The findings revealed that the knowledge of farmers in selected eight JAAs circles ranged from 56.58 to 69.80 percent of the maximum knowledge score which was 31. The knowledge score of the two circles numbers 2 and 3 were having higher score than that of average score of pooled sample with a negligible sort of significant difference. The highest knowledge score was found in
the circle number 7 which was having significant difference as compared to the other circles specially the circle numbers 1, 4, 5, 6, and 8.

As in addition, the circle number 7 was comparatively benefited because of major reasons that this circle is located on highway means easy approachable. It has almost remained the nucleus of maximum agricultural activities because of the central place. The activities as the I.C.D.P camp organised there, integrated pest management activities, chrucha mandal camp etc. In addition to these, the soil conservation activities also focussed its keen attention towards this area because it is undulated and erosion is also some what more. Apart from all these, the Department of Agriculture itself is having a vegetable production farm in this circle where the hybrid varieties of vegetables are grown and the seedlings of vegetables are distributed to the farmers for demonstrative purposes on the basis of free of cost.

The integrated pest management programme also functioning here in which the extension functionaries of various levels used to meet weekly with the selected group of farmers, the experts of the I.P.M scheme (Govt of India) also company with the (extension functionaries) to the fields of farmers to collect the insects pests with the help of nets and they exhort the farmers about the insects which are friendly insects and which are enemy insects, about their benefits, economic losses and so on.
Conclusively, when such smooth activities are running in an area the farmers of that area will ultimately be much aware rather than the farmers of other areas.

Being a central place, the maximum activities focussed their attention here. The farmers of the other areas also conveniently approach here with out the wastage of much time and the farmers of the other circles usually used to come here for selling, purchasing their commodities or for purchasing household goods etc.

Now the department agriculture during this season has started I.P.M in other areas also.

Regarding the adoption score of contact farmers which was found (66.97) where as the adoption score of non-contact farmers was found (58.72). This reveals that there was significant difference in the adoption of wheat production technology among the contact and non-contact farmers because the contact farmers being technically more sound, apply the practices which are recommended by extension functionaries.

The difference in the average yield of wheat was also noticed. The yield obtained by the contact farmers was 27.84 qts/hectare where as the average yield obtained by the non-contact farmers was found 21.76 qts/hectare. This showed that there was a remarkable difference in yield obtained (of wheat) by contact and non-contact farmers.
As the maximum area of the state is rainfed and it will bring under lift irrigation then the production will be enhanced. Further, it revealed that T&W system had a significant impact on farming community as yield of wheat has been increased.

FEEDBACK BEHAVIOUR OF FARMERS AND EXTENSION FUNCTIONARIES
(AEOs and JAAs).

The findings revealed that farmers as a whole did not make feedback to the research system. They made feedback only to extension system. While making the feedback to the extension system, however, they found to be reluctant to make the purposive feedback and usually conveyed the performance of an innovation when they were purposively called in by the field extension workers or subject matter specialists during their visits. More than 80 percent of contact and non-contact farmers mostly used the methods physically showing to JAAs and when JAAs personally called in to discuss and show. When the contact farmers observed that the innovation proved to be worthy according to recommendations advocated to them. A considerable percentage of contact farmers conveyed such informations to the JAAs (95.50 percent) and to Subject Matter Specialists (72.25 percent) when they purposively called in by them. But non-contact farmers rarely used these methods. That is because of the reason that they are less professional, shamserness in between them, lack of awareness, etc. Only in case of JAAs they tried to contact them for showing the farm problems, results pertaining to local adaptations and conveying them about the performance of an innovation when it was
found according to recommendations advocated to them. None of the
farmers could make feedback through writing letters to extension
personal. It is quite natural because JAAs (Junior Agriculture
Assistant) are closest extension agent for the farmers. Due to
this reason the farmers remain in keen touch with the JAAs than
the other extension personal. Simultaneously none of the farmers
could make feedback through writing letters to research scient-
ists. The same is the reason as stated above that JAAs being
closely associated with farming community thus making them aware
regarding the new technologies. The findings as such suggests
that for effective research and extension activities there must
be a regular feedback in so way between the researchers and
farmers so that researchers may be relevant to the actual field
problems.

The findings also revealed that the feedback intensity
of contact farmers was significantly higher than that of non-
contact farmers. This is due to the obvious reason that the
maximum extension effort was concentrated on the contact farmers
as envisaged in the reorganised extension system.

The finding further revealed that Size of holding,
Education, Caste, Social participation, knowledge and adoption
were having significantly positive correlation with feedback.
Significantly positive correlation of feedback with information
processing suggests that the farmers having more processing
ability will make more feedback.
Furtherly, the findings revealed that the extension workers like AEOs and JAAS mostly used the methods like discussing and showing the observed problems, local adaptations and performance of an innovation to the superior extension workers, when they purposively called in them to know about such matters and speaking such informations in the fortnightly training sessions. As 100 percent of JAAS and 100 percent of AEOs speak in fortnightly meetings and 100 percent JAAS and 100 percent AEOs showed to superior officers when personally called in by them regarding the performance of recommendations. Near about 74 percent of JAAS and 70 percent AEOs showed and discussed the things when they purposively called in by superior officers. 40 percent JAAS and 35 percent AEOs also talked and showed to SMSs when they called in to discuss. 100 percent of contact farmers and 100 percent of non-contact farmers showed and discussed in superior officers when they purposively called in by them. In case of monthly meetings only 10 percent of AEOs conveyed the information relating to advocated recommendations as the JAAS have not to attend the monthly meetings because these meetings are meant to the AEOs only.

In the training session all the extension personals including the Subject Matter Specialists usually participate because senior district level Subject Matter Specialists impart training. Generally a part of training time is devoted to discussion about the evaluation of recommendations made for the farmers. Moreover conveying informations in all training ses-
sions was also a easy way to convey them to all the members of extension system.

Findings further revealed that none of the AEOs and JAAs made feedback to the researcher in any form. None of the AEOs and JAAs wrote the article. The findings further stated that AEOs usually spoke in monthly meetings but JAAs don’t do so. This is because of this reason that the monthly meetings are being attended by the AEOs only as in monthly meetings AEOs have to submit monthly progress report, stocking position etc.

As regards to the feedback no significant difference was observed between AEOs and JAAs. Thus it suggests the AEOs and JAAs made feedback nearly to equal extent.

COMMUNICA TIONAL AND TECHNOLOGICAL PROFILE OF CONTACT FARMERS AND PERCEPTION OF BENEFICIARIES OF DIFFERENT SOCIO-ECONOMIC STATUS.

The findings observed that out of eight communicational sources the "Extension Worker" and "Radio" were found most appropriate which were having highest mean scores as 4 and 3.93. This revealed that communication profile of contact farmers was higher towards the communication sources, Extension worker and radio.

No doubt the other communicational sources were also found appropriate as newspaper, extension literature, demonstrations, exhibitions and subject matter specialists.
The extension worker as key person of grass root level and he has the keen and close association with the farming community. The extension worker is having a fixed day schedule to visit in the particular area and most significant point is that the farmers have face to face talks with him and face to face communication is most appropriate. They used to discuss with him various matters even if not related agricultural aspect. Where as concerned to the day to day message regarding agriculture side that is the routine work of extension worker as per his visit.

Radio is one side communication source. It renders as a recreational aspect also. The programme like “Desh Suhawan”, “Sohni Dharti” etc the main programmes which are listened by the farmers as they are the regional programmes and broadcasted in regional language which the farmers can easily understand.

The newspapers and exhibitions were also considered as appropriate communicational sources as exhibitions are also organised by Agriculture Department. The demonstration is also a useful source but there is little bit problem in that. the demonstration can be laid out in fields of rare farmers while the other ones feel that why they did not get. As the demonstrations plots are few in numbers and it can not fulfill the desire of all the contact farmers. Even the extension worker tries to cover the maximum contact farmers turn by turn as per the term and conditions. But it is not necessary that the demonstration used to issue to contact farmers only.
The Subject Matter Specialists occasionally used to visit in the areas as their operational area is too much and they have to visit in the entire sub-division which comprises of the 6-7 zones and near about 50 operational circles.

The extension literature is being provided to the farmers the package of practices also being distributed to the farmers in 1.P.M programmes the farmers being provided the 1.P.M kits (which have nets, polythene bags, rods etc) for collection of insects.

The small pamphlets also used to be distributed to the farmers which are printed either in Hindi or in Urdu.

Regarding the communication source "television" it was not found significant because it is somewhat costlier also, then electricity problem is also one of the factor for its insignificance, and language problem also persists.

Similarly, regarding the profile towards (eight) technological practices, sowing of high yielding varieties and recommended seed rate were found most appropriate and placed in rank order number 1 and 1d. Top dressing of nitrogenous fertilizer placed on rank III and seed treatment was placed on rank IV. Similarly recommended sowing time obtained rank position V and recommended weed control obtained rank position VI. The recommended dose of chemical fertilizers obtained rank position VII and (chemical for) disease/insect control obtained rank position VIII.
The recommended dose of chemical fertilizer is not fully applied by some of the contact farmers even. There are many parameters behind it. Firstly the non-availability of the potassic and phosphatic fertilizers at the time of sowing because maximum area is rainfed. The farmers are more or less dependent upon rains and when it showers, the farmers go for sowing and if unfortunately the fertilizer is not available at centres at that time then they will be deprived of applying that. Secondly monitoring position of the farmers is also one of the factors. This has been selfly observed because phosphatic fertilizer is having more rate rather than others. But to bridge this gap, under the dry land scheme, the phosphatic and potassic fertilizers is being distributed by the department of Agriculture to the farmers on the basis of 50 percent subsidisation (But it covers limited farmers only).

Disease/insect control measures being less used by the farmers. Specially regarding the insect control, the mechanical control used by the farmers. For controlling the common disease as loose smut, the same mechanical control is used.

PERCEPTION OF BENEFICIARIES (OF DIFFERENT SOCIO ECONOMIC STATUS) IN RELATION TO COMMUNICATION SOURCES AND TECHNOLOGICAL PRACTICES.

SOCIO-ECONOMIC STATUS WISE CLASSIFICATION

The socio-economic scale as already deployed by Trivedi (1963) was modified and used for 200 respondents selected for
present investigation, the maximum number of (32 percent) farmers belonged to upper-middle class, (31.50 percent) belonged to middle class, 21 percent of farmers belonged to lower-middle class and 15.50 percent of farmers belonged to the upper class.

The symbolically representation was denoted as A1 for upper class A2 for upper-middle class, A3 for middle class and A4 for lower-middle class.

THE PERCEPTION AMONG DIFFERENT GROUPS WITH REFERENCE TO COMMUNICATION SOURCES AND TECHNOLOGICAL FARM PRACTICES AS GIVEN BEI

PERCEPTION IN RELATION TO COMMUNICATIONAL SOURCES

Findings revealed that there were significant variations in perception among different socio-economic status groups of farmers in relation to extension workers ("F" = 15.709), exhibition (15.389), Newspaper (4.833), Demonstration (6.219), Radio (4.129) and Subject Matter Specialists (2.853). Where as in case of communication sources "television" and "extension literature" the non-significant variations were observed even at 5 percent level of significance. The F value for these sources found as (0.7243) and (1.723).

As television in considered an appropriate communication and recreational device but its impact upon these 200 selected respondents was not observed appropriate because firstly it is costlier, secondly, in rural areas electricity problem also
observed there, thirdly the language problem also. No doubt the regional service programmes also being displayed on Television but its frequency is not so high as these programmes can be visualised only within vicinity of 30 kms of Jammu city and in the other areas national network used to display.

Regarding Extension literature it is also less appropriate because of the low standard of education of farmers, secondly the maximum literature used to distribute to contact farmers (because of their continue touch with extension functionaries) while the other farmers are deprived of it and on the other hand contact farmers leastly bother for supplying it to the others.

Thus these results indicate that different groups (of farmers) perceived these communicational sources differently.

Further, the mean score difference between the groups regarding each one of the communication source were worked out and it was found that there were variations with regard to source "Extension workers" between the socio-economic groups as the significant variations were found between upper and upper-middle class and between the upper class and middle class and upper class and lower-middle class. Significant difference was also found between the upper-middle and lower-middle class and between middle and lower-middle class. No significant result was observed between upper-middle and middle class.
Regarding to the exhibition, the significant variations were found among each one of the three classes but no significant difference was found between middle and lower-middle class, and upper and upper-middle class.

Regarding the communicational source "Television" no significant variation was found between the upper and upper-middle class, upper and middle class, upper and lower-middle class. Similarly non-significant variations were found between the upper-middle class and middle class and upper class and lower-middle class. Similarly the non-significant variations were found between the middle and lower-middle class.

With regards to communication source "Newspaper" both significant and non-significant variations were found between the different socio economic status groups as the significant variations were found between the upper class and lower-middle class, upper-middle class and middle class and between the upper-middle class and lower-middle class. Similarly the significant variations were observed between the middle class and lower-middle class. The non-significant variations were observed between the upper and upper-middle class and upper and middle class.

As regards to the communicational source "Extension Literature" the significant variations were found between the upper class and lower-middle class and between the upper-middle class and lower-middle class while the non-significant variations were also found between the upper and upper-middle class.
and between the upper and middle class. Similarly the non-significant variations were also found between the upper-middle class and middle class and between the middle class and lower-middle class. The significant results revealed that the farmers are not getting coincided information from this source while the non-significant results indicate that farmers are getting homogeneous information as regarding to this source. This can because of reason "lack of education".

As regarding to the communication source "Demonstration" the significant results were found between the upper class and middle class and between the upper class and lower-middle class. Similarly the significant variations in perception were also found between the upper-middle class and lower-middle class. On the other hand the non-significant differences in perception were found between the upper and upper-middle class, between upper-middle class and middle class. The same non-significant variations in perception were also found between the middle and lower-middle class. The non-significant results indicate that farmers of these different groups who perceive equally were in keen touch with extension functionaries and because of keen contact they maximum got benefits as demonstrations is also one of the benefit. Because the Department of Agriculture used to issue the demonstration plots (as on trial purpose) on the basis of maximum subsidisation.

The findings further revealed that regarding to communication source "Subject Matter Specialist" the only significant
variation in perception was found between the upper-middle class and lower-middle class. Where as the non-significant variations were found between the upper class and upper-middle class, upper class and middle class and between the upper class and lower-middle class. Similarly, the non-significant variations were also found between the upper-middle class and middle class and between the middle class and lower-middle class. The reason for maximum not non-significant variations is that the subject matter specialists used to visit in the areas occasionally and having less touch with farming community in direct way because subject matter specialists have larger areas in within their jurisdiction. The SMSs have entire sub-division under its jurisdiction and subdivision comprises of 50-60 JAAS circles. The subject matter specialists used to visit in the area when any problem in area as any disease/insect attack in crop or to take the observations of O.F.Ts.

The findings further reported that regarding the information source "Radio" the significant differences were found between the upper class and middle class and upper class and lower-middle class. Simultaneously the significant differences were also found between the upper-middle class and lower-middle class and between the middle class and lower-middle class while the non-significant differences were found between the upper and upper-middle class and between the upper-middle class and middle class. The significant results indicate that the farmers of different source economic status were not perceiving equally as regarding to communicational source "Radio".
middle class and upper and lower-middle class. Similarly, the significant differences were also found between the upper-middle class and lower-middle class and between the middle class and lower-middle class. These significant results indicate that the farmers differ in their perception regarding the "Recommended Seed Rate" while the non-significant variations in perception were found between the upper and upper-middle class and upper-middle class and middle class.

As regarding the technological practice "Recommended use of Chemical Fertilizers" the non-significant variations were found between the upper class and upper-middle class, upper class and middle class and between the upper class and lower-middle class. Similarly the non-significant differences were also found between the upper-middle class and middle class and between upper-middle class and lower-middle class. The non-significant variation was also found between the middle class and lower-middle class. All the above non-significant results indicate that farmers of different classes were almost homogeneous in their perception regarding this practice. That is also because of the reason that they are lessly exorted (motivated) by the extension functionaries regarding the benefits of phosohatic and potassic fertilizers specially. Besides this the non availability of fertilizer at the time of application can be the another factor.

The findings further revealed that regarding the technological practice "Seed Treatment" the significant variations were found between the upper class and lower-middle class and between the upper-middle class and lower-middle class. Where as
middle class and upper and lower-middle class. Similarly, the significant differences were also found between the upper-middle class and lower-middle class and between the middle class and lower-middle class. These significant results indicate that the farmers differ in their perception regarding the "Recommended Seed Rate" while the non-significant variations in perception were found between the upper and upper-middle class and upper-middle class and middle class.

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The findings further revealed that regarding the technological practice "Seed Treatment" the significant variations were found between the upper class and lower-middle class and between the upper-middle class and lower-middle class. Where as
the non-significant variations were found between the upper class and upper-middle class, upper class and middle class. Similarly the non-significant variations were found between the upper-middle class and middle class and between the middle class and lower-middle class. The significant variations revealed that farmers of different socio-economic status were heterogeneous in their perception regarding this technological practice.

With regarding to the technological practice "Top Dressing of Nitrogenous Fertilizer" the significant variations were found between the upper class and lower-middle class and between upper-middle class and lower-middle class while the non-significant differences in perception were found between the upper class and upper-middle class and between the upper class and middle class and between the upper-middle and middle class. Similarly the non-significant differences were found between the middle class and lower-middle class. Thus the results indicate that farmers not perceiving equally regarding above mentioned practice.

Regarding to the practice "Sowing at Recommended Time" the significant differences were found between the upper class and upper-middle class, upper class and middle class and between the upper class and lower-middle class. Simultaneously the significant variations were also found between the upper-middle class and middle class and between upper-middle class and lower-middle class. The non-significant variations were found within the middle and lower-middle class. As some of the area is rainfed and some of the area is irrigated, in irrigated areas the sowing
the non-significant variations were found between the upper class and upper-middle class, upper class and middle class. Similarly, the non-significant variations were found between the upper-middle class and middle class and between the middle class and lower-middle class. The significant variations revealed that farmers of different socio-economic status were heterogeneous in their perception regarding this technological practice.

With regard to the technological practice "Top Dressing of Nitrogenous Fertilizer" the significant variations were found between the upper class and lower-middle class and between upper-middle class and lower-middle class while the non-significant differences in perception were found between the upper class and upper-middle class and between the upper class and middle class and between the upper-middle and middle class. Similarly, the non-significant differences were found between the middle class and lower-middle class. Thus the results indicate that farmers not perceiving equally regarding above mentioned practice.

Regarding to the practice "Sowing at Recommended Time" the significant differences were found between the upper class and upper-middle class, upper class and middle class and between the upper class and lower-middle class. Simultaneously, the significant variations were also found between the upper-middle class and middle class and between upper-middle class and lower-middle class. The non-significant variations were found within the middle and lower-middle class. As some of the area is rainfed and some of the area is irrigated, in irrigated areas the sowing
is done in time whereas in rainfed areas it depends upon the rains, so there is heterogeneity between the groups regarding the sowing of wheat.

Regarding to the technological practice "Weed Control" the significant differences were found in the perception between the upper-middle class and middle class and between the upper-middle class and lower-middle class. Whereas the non-significant variations were found between the upper class and upper-middle class, upper class and middle class and upper class and lower-middle class. Simultaneously the non-significant difference was also found between the middle class and lower-middle class.

The findings further revealed that regarding the technological practice "Disease/Insect Control" there were significant variations in the perception between the upper class and upper-middle class, upper class and middle class and upper class and lower-middle class. Simultaneously the significant variations in perception were also found between the upper-middle class and lower-middle class. While the non-significant variations were found between the upper-middle class and middle class and between the middle class and lower-middle class. The significant results indicate that the farmers were not perceiving equally regarding the above mentioned practice. Whereas the non-significant results indicate that the farmers were in almost equal perception.

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In I.C.D.P. camps, in social organisations as the majority of non-contact farmers did not participate in any organisation.

5. The findings revealed that contact farmers were having more knowledge rather than non-contact farmers. It is also because of their keen touch with the extension functionaries. So for this, extension functionaries must give the priority to the non-contact farmers specially when the extension activities like I.P.M programme, or in other training camps, when the extension functionaries used to distribute the equipments like insect collection nets or any other equipments like Maize Cob-sheller, Sickles, Seed Minikits etc., then the non-contact farmers must be equally considered.

Apart from this agricultural activities like exhibitions, Chureha Mandal programmes should be organised in the rural interior areas and simultaneously, when one programme has been organised in one area and during the next time another area should be selected for such activities.

6. It was also found that adoption rate of recommended practices was also higher in the contact farmers as compared to the non-contact farmers. Although the adoption rate and yield of crops among the non-contact farmers has also been increased yet there exists a gap between these two categories of farmers. This provides a challenging opportunity to the T&V system to bridge the gap.
7. The non-contact farmers should also participate with JAAs as both Junior Agriculture Assistants and contact farmers can motivate and persuade the non-contact farmers to attend the meeting.

8. The contact farmers should also fully co-operate to the non-contact farmers, they must disseminate the technological points to the non-contact farmers.

9. Proper feedback between the research, extension and client system was also considered to be vital in T&V system. But the findings revealed that farmers made feedback only to the extension system which was mainly confined to the JAAs. They are also found to be reluctant to make the purposive feedback. Similarly, in the extension system only the regional level Subject Matter Specialists made feedback to the research system which was mainly confined to the researchers of Agricultural University.

The Agriculture Extension Officers and Junior Agriculture Assistants made feedback to higher authorities when they were asked to furnish the certain informations, usually they made feedback in the fortnightly meetings. The Agriculture Extension Officers made feedback in monthly meetings as the monthly meetings are being attended by the Agriculture Extension Officers only.
10. From the findings it was also found that the majority of the upper class people utilized the communicational sources and the technological farm practices for receiving the agricultural technology and the perception for the utilisation of all communicational sources and recommended technological practices. The farmers of this status differ from the middle and lower-middle class people except in few cases where there was no difference in their perception.

That means the upper class people have more contacts with the extension personals and have utilized the communicational sources and technological practices in comparison to the middle class and lower-middle class people who have less contacts and facilities and the resources even.

Out of eight information sources the extension workers was considered most appropriate. the "Radio "Exhibition", Newspaper, SNS, and demonstrations also found appropriate apart from the two communicational sources "television" and "extension literature".

Similarly, out of eight selected technological farm practices all the technological practices found appropriate besides one practice i.e "use of recommended doze of fertilizers" (This was the perception of 200 selected respondents pertaining different socio-economic status groups).

Regarding the technological and communicational profile of
selected 100 contact farmers the "extension workers" was also considered most appropriate followed by the other and thus was placed in rank order number first. Similarly, regarding the technological practices the "use of high yielding varieties" considered most appropriate rather than others and placed in first rank order.

In the light of above analysis some important suggestions as :

(a) People belonging to middle class and lower-middle class the (weaker sections) should be properly made aware of latest agriculture technology and effective communication sources.

(b) The farmers should be taught and trained to preserve the farm informations by noting the specified notebooks and keeping leaflets.

(c) The demonstrative trials should be distributed to the farmers impartially with preference to the non-contact farmers.

(d) "Kisan Ghoshtis" should be organised in interior rural areas with the coordination of the information department.

1. Popular agriculture journals should be used by the farmers. The JAAS should motivate the contact farmers to the sub-
scribe popular agriculture journals later on the non-contact farmers will follow the contact farmers.

12. The training and visit system has developed the mechanism link "input supply" with extension efforts. It has met with the partial success by the farmers with the availability of inputs. This needs to be further strengthened.

13. While on making the contact farmers, the Junior Agriculture Assistant should consider the selection criteria and not the socio-economic status of farmers.

14. The replacement and induction of the new contact farmers should be done. By this way the non-contact farmers will also get the chance to act as a contact farmer.

15. As it happens in many cases, when gigantic or ambitious programme is made out functional due to paucity of well experienced personal, there is always a dilution. Therefore for the improvement of T&V system, in order to uplift the economic condition of the farmers, the administration should be geared up to achieve the long-run objectives. However, as a reorganisational set up, this system is also not free from bias and constraints. Hence a competent team of experienced personal for better execution and dedicated workers at all levels may bring promise for achieving needs aspires of farmers.
The findings also revealed that the yield of wheat crop has been increased but as the maximum area of the state is still rainfed and if the lift irrigation system will be improved covering the more area under irrigation as the potentiality is there thus the increasement in yield can be raised.

So it is thus suggested that the lift irrigation system should be improved more in order to bring more rainfed area under irrigation so as to raise the production more. By this way the area can be put under vegetable production because vegetable production can be more beneficial rather than the cereals as Katra is the major market point it falls in the Udhampur district which undertook the study and the pilgrims in the lakhs number used to visit to holy shrine "Shri Mata Vaishno Devi" for the fulfillment of the vegetables, it is being imported from other adjoining states like Punjab, Haryana etc., and if more area will be under irrigation then vegetable production will be enhanced thus will meet requirement also.


Anonymous (1986).


Asopa, V.N. and Tripathi, B.L. (1987).

Command Area Development in Mahikhand Centre for Management in Agriculture; Indian Institute of Management, Ahmedabad, Gujarat.


Persuasive Communication Holt, Rinehart and Winston, Inc. Michigan State University U.S.A.

Benor, D and Harrison, James, A. (1977).


Bharali, P.S (1982).


Chapin F.S (1928).

Crile, F.S. Morrill, D and Nessett, G (1945).


"A Study of some Psychological Correlates of Adoption of Innovation in Farming". Ph.D thesis IARI New Delhi.


"Adoption of Hybrid Maize in Klyanpur Block, District Kanpur" M.Sc. (Ag) thesis, Govt. Agriculture College, Kanpur. (Unpub.)


Directorate of Agriculture Extension (1982) Tamil Nadu:

Agriculture Extension Project Training and Visit System for Charts and Circulars for field functionaries.


Techniques of Attitude Scale Construction, New York. Apple Century Graffs in U.S.A.


*The Diffusion of Innovation, Modes in Action. The Funtua Agricultural Development Project, Kaduna State, Nigeria. Agriculture Administration.* 1, 3(4), 201-217.

Gupta, R.S. (1968).


*Attitude of Farmers Towards Intensive Agriculture Extension System (T and V System) Rural India,* March (1986), 41-46.


*Analytical Study of Programme of Farmers Training Centre Jabalpur, (M.P) Journal of Extension Education, Vol 11 (53-60).*


Hussain, Safiq 1964.

"A Critical Study on Demonstration as Communication Media in Adoption of Improved Technology of Farming in C.D. Block Ajitmal, Etawah". (M.Sc. Ag) thesis Govt. Agriculture College, Kanpur.


Howell, J (1982).

Managing Agriculture Extension; the T&V System in Practice. Agriculture Administration, 2, 4 December, 1982.


"A Study of Relation Effectiveness of Extension Methods in Adoption of Improved Agril. Practices". (M.Sc Ag) thesis, Govt Agriculture College, Kanpur.
Jai Ram (1965).


A Study of Farmers Characteristics in the Adoption, Non Adoption and Reversion of Improved Seeds and Fertilizers in C.D. Block Gayaghat, Muzzafarnagar. (M.Sc Ag) thesis Govt. College for Agriculture Kanpur.


A Comparative Study of Effectiveness of Agriculture Development Programme in Package and Non-package Districts of Raipur Division.


Jayaraman, T.K. (1979)


Kapoor, R.P. (1966)

Impact of Extension Contact Influencing Farmers in Adoption of Source of Selected Innovation. Indian Journal of Extension Education 6(13,14) : 83-86.
Kulhari, V.S. (1980).


Likert, R. (1932).

A Technique for Measurement of Attitudes. Arch. Psychology No. 140.


Legans, J.P. (1963)


Laheria, S.N. (1964)


Marsh, C.P. and Coleman (1962)

"Communication and Adoption of Improved Farm Practices." Agriculture Experiment Station Report, Laximyston. PP-18.


Miles, Mathews B (1964):


Murthy, A. Surya Narayanan (1974)


Menon, K.R. and Duraiswamy, K.N. (1975):


Mathur, P.N. (1976):


Indian Journals of Extension Education.


A Comparative Study of Opinions about some Desirable Personality Traits of Contact Farmers. Workshop on Management of Transfer of Farm Technology under T & V System N.I.R.D. Hyderabad.
Malla, G.B. (1986):


Nagarajah, K.V. (1981)


Ogunfiditimi (1981)


Planning Research and action Institute (1959)


Pawar (1969)


Panda, H. (1979)


Pathak (1979)

Impact of National Demonstration on Knowledge, Attitude and Adoption Level of Farmers in West Bengal Indian Journal of Extension Education. XV (1-2)
Pandey, S.N. (1979)


Perinbam, P (1981)


Linkage Extension and Support System and Methods of Integration of Special Scheme for Effective Transfer of technology. Workshop on Changing Prospectives in Extension N.I.R.T. Hyderabad.

Rogers, E.M. (1962)


Rai, S.L. (1967)


Rice, E.B. (1971)

Extension in Andes All., Evaluation paper, 30, Washington, D.C.


A Study of Motivation Pattern of Farmers Towards the Adoption of High Yielding Varieties of Wheat.


Impact of Extension Contact in Agriculture. A case study on Rice Cultivation in A.P., India journal of Agriculture Economics. XXXIV.4.

Roy, A.K; B.R.Aattri and P.N.Mathur (1979)

Rao, K.U. (1979)


Roy, A.K; Singh, A.S; Sinha, B.P and Vilay Raghvan K (1982)


Intensive Agriculture Extension system(T&V system) A Critical Analysis Workshop on Management of Transfer of Farm Technology under Training and Visit system, N.I.R.D. Hyderabad

Singh, B.N and Jha, P.N (1965)

"Source of Farm Information", Indian Journal of Extension Education (1) : 34-42.

Singh, A. (1965)

Study of Farmers Characteristics Associated with the Adoption and Diffusion of Improved Farm practices in C.D. block Chathawal, Muzafarnagar unpublished (M.Pc.) thesis Agric. College, Kanpur.
Sankatha Ram (1965)


Singh, D. (1968)

Effect of Socio-economic Variables in the Acceptance of the Farm Practices in Kalyanpur (Kanpur) Unpublished (M.Sc.) Ag. thesis Agriculture College Kanpur.


Suberamanyam, V.S; Menon, K.R (1973).

"A Study on the Effectiveness of Extension Method and


Sood, R.C (1978).

Agriculture Extension for Rural Development. Indian Farming XXVII (7 and 8) 45-50.

Sarkar, A.B. (1979)


Saikia, A (1982)


Sharma, D.K and Soria V.C (1983)

Comparative Analysis of Knowledge and Adoption of Contact and Non-contact Farmers of Training and Visit System Workshop on Management of Transfer of Farm Technology under Training and Visit System N.I.R.D. Hyderabad.


Sharief A.K (1985)


Singh R.K (1987)

A Study on Differential Information Gap in Transfer of
Agriculture Technology in Paddy Cultivation of Farming Communities under T&V System in the Rai Barelli district U.P unpublished M.Sc (Agr) thesis submitted its C.S.A University of Agriculture and Technology Kanpur (U.P)

Singh, H (1988)


Thurstone, L.L (1927)

The Method of Paired Comparison for the Social Values, Journal of Abnormal Psychology ;21

Thurstone, L.L (1946)

Comment American Journal of Sociology 52:39-50

Tripathi, S.L (1963)

Tripathi, S.L and Tripathi J.N (1969)

"Effectiveness of Extension Method" Rural India 32:214

True, A.C (1928)


True, A.C (1929)


Upadhyaya H.C (1968)

Studies of Sources of Information used by the Farmers in the Adopting Improved Agricultural Practices with special reference to Mass Communication Media in the related Villages of Rewa district M.P

Vasaya, B.P; K.G.Halyal and M.N.Popat (1983)

Vidyarthi, C.S (1975)

Working of New Extension System in Chambel Command Area development Programme, Kurukshetra 24 (1):18

Waghmare, S.K and Pandit, V.K (1982)

Constraints in the Adoption of Wheat Technology by the Tribal Farmers of Madhya Pradesh, Indian Journal of Extension Education, Vol XVIII, nos 1 and 2, pp 96-98.

Wienier N(1954)


Westley, B and Maclean, M (1957)

A Conception of Model Communication Research Journalism. Quasitely. 34 :31-38

Wilkening E.A (1950)

Adoption of Improved Farm Practices as related to Family Factors Wisconsin AES Res. Bulletin 185.

Wilkening E.A(1952)

Yadav, I.D. Ram (1964)

"A Study of Factors Affecting the Adoption of Improved Seed in C.D. Block Muzaffarnagar District Muzaffarnagar"
**BACKGROUND INFORMATION**

Name of the Farmer: S/O.

Block/Zone:  

Circle:  

Village:  

Distance from Block/Zone - Headquarter: Kms.

<table>
<thead>
<tr>
<th>A</th>
<th>AGE</th>
<th></th>
<th></th>
<th></th>
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</tr>
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<tbody>
<tr>
<td>a)</td>
<td>21 to 30 yrs</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>31 to 40 yrs</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>41 to 50 yrs</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d)</td>
<td>51 to 60 yrs</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>e)</td>
<td>61 &amp; above</td>
<td>5</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>B</th>
<th>SOCIO-ECONOMIC STATUS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>a)</td>
<td>Upper Class</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Upper-Middle Class</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Middle Class</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Lower-Middle Class</td>
<td>4</td>
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<tr>
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<td>Labour</td>
<td>1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>b)</td>
<td>Caste Occupation</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Business</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d)</td>
<td>Agriculture</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>e)</td>
<td>Service</td>
<td>5</td>
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<th>EDUCATION</th>
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<tr>
<td>a)</td>
<td>Illiterate</td>
<td>1</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>b)</td>
<td>Can Read only</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Can Read &amp; Write</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Primary</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>Middle</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f)</td>
<td>High School</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g)</td>
<td>Graduate</td>
<td>7</td>
<td></td>
<td></td>
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<table>
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<tr>
<th>E</th>
<th>SOCIAL PARTICIPATION</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td>a)</td>
<td>Member of no Organisation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Member of One Organisation</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Member of more than One Organisation</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Office Holder</td>
<td>4</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>F</th>
<th>SIZE OF HOLDINGS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Less than One Hectare</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>One to Three Hectare</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Three to Five Hectare</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Five to Seven Hectare</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>More than Seven Hectares</td>
<td>5</td>
<td></td>
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</tbody>
</table>
ATTITUDE OF BENEFICIARIES TOWARDS T&V SYSTEM

<table>
<thead>
<tr>
<th>S.NO</th>
<th>STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The T&amp;V system has improved the Agriculture of this area and has done great benefit to the farmers.</td>
</tr>
<tr>
<td>2.</td>
<td>I doubt the success of the T&amp;V system because its extension functionaries lack the sense of Rural Orientation.</td>
</tr>
<tr>
<td>3.</td>
<td>In this system farmers are now adapting improved practices because of regular contact with extension functionaries.</td>
</tr>
<tr>
<td>4.</td>
<td>I am not satisfied with the recommendations of the extension functionaries of T&amp;V system as they are rarely practicable.</td>
</tr>
<tr>
<td>5.</td>
<td>Because of T&amp;V system the extension functionaries for agriculture development are available to the farmers at grass root level.</td>
</tr>
<tr>
<td>6.</td>
<td>T&amp;V system focussed its attention on the contact farmers only. Other farmers are deprived of this programme.</td>
</tr>
<tr>
<td>7.</td>
<td>There is more publicity and little work in T&amp;V system.</td>
</tr>
<tr>
<td>8.</td>
<td>The new extension system has helped one to get loans from cooperative society in time. It was not known earlier.</td>
</tr>
<tr>
<td>9.</td>
<td>The Visit schedule of extension functionaries never correspond to the need and convenience of the farmers.</td>
</tr>
<tr>
<td>10.</td>
<td>In this system Agriculture scientists have come out with research findings suitable for the area. It has helped in solving the problems of the area.</td>
</tr>
<tr>
<td>11.</td>
<td>Only those farmers are getting benefit who obtained the benefits in C.D programme previously.</td>
</tr>
<tr>
<td>12.</td>
<td>Because of reorganised extension system farmers have developed faith and trust on extension functionaries.</td>
</tr>
<tr>
<td>13.</td>
<td>The transmission of farm information after the fortnightly training is not done properly in T&amp;V system.</td>
</tr>
<tr>
<td>14.</td>
<td>This is only the T&amp;V system where farmers know how to improve their economic condition within available resources.</td>
</tr>
</tbody>
</table>
KNOWLEDGE OF FARMERS TOWARDS IMPACT OF T&V SYSTEM

Type of Farmer : Marginal Farmer / Small Farmer / Big Farmer

<table>
<thead>
<tr>
<th>S.NO</th>
<th>STATEMENT</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>SDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>T&amp;V system has boost up the agriculture of this area and has provided the great benefit to the area.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>In this system the farmers are adapting improved practices.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>New system has helped one to get loans from the Cooperative societies.</td>
<td></td>
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<tr>
<td>4.</td>
<td>Transmission of fortnightly training message is delivered properly.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5.</td>
<td>In T&amp;V system Agriculture Scientists came out with research findings suitable to this area.</td>
<td></td>
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<td></td>
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<tr>
<td>6.</td>
<td>Visit Schedule of extension functionaries correspond to the need and convenience of farmers.</td>
<td></td>
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<tr>
<td>7.</td>
<td>The farmers have developed faith and trust on extension functionaries.</td>
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<tr>
<td>8.</td>
<td>T&amp;V system has bridged the communication gap between the farmers and extension functionaries.</td>
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</table>

ADOPTION

<table>
<thead>
<tr>
<th>S.NO</th>
<th>STATEMENT</th>
<th>Always</th>
<th>Mostly</th>
<th>Seldom</th>
<th>Never</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Recommended Varieties.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Recommended Seed Rate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Seed Treatment.</td>
<td></td>
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<tr>
<td>4.</td>
<td>Recommended dose of Chemical Fertilizers.</td>
<td></td>
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<tr>
<td>5.</td>
<td>Top Dressing of N2 Fertilizer.</td>
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</tr>
<tr>
<td>6.</td>
<td>Sowing Time Recommended.</td>
<td></td>
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<tr>
<td>7.</td>
<td>Disease/Insect Control.</td>
<td></td>
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</tbody>
</table>
SCHEDULE TO MEASURE THE DIFFERENTIAL KNOWLEDGE OF CONTACT AND NON-CONTACT FARMERS ABOUT IMPROVED WHEAT TECHNOLOGY

1. Please name the two latest recommended varieties of wheat.
   a) ...............  b) ............... 

2. What is the recommended time of sowing of wheat? .............

3. What is the seed rate required per hectare? .................

4. Tell the fertilizer requirement for HYV of wheat per hectare.
   ........................................

5. Please tell about the chemical required for seed treatment.
   ........................................

6. What are the main two advantages of seed treatment.
   ........................................  ........................................

7. Tell how much quantity of chemical is required for treating 5 Kgs of seed.
   ........................................

8. How many times the insecticide and pesticide be sprayed......

9. What is the recommended spacing.  ..............................

10. What is the recommended depth of sowing. ....................

11. Please tell about the chemical required for weed control for controlling Phalorius Minor(Sitti).
    ........................................

12. How much quantity of chemical is required for weed control purpose in one hectare area of wheat crop?
    ........................................

13. How many days after sowing the following fertilizer should be applied to the crop?
    ........................................

    S.No Fertilizer No. of days after germination.
    ........................................
    a) First doze of Nitrogen.
    ........................................
    b) Second doze of Nitrogen.
    ........................................
    c) Third doze of Nitrogen.
    ........................................
14. Please tell about the names of Insects/Diseases, chemical for control and dose of chemical recommended for one hectare field.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of Insects</th>
<th>Name of Disease</th>
<th>Name of Chemical</th>
<th>Recommended dose of Chemical recommended per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td></td>
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</tr>
</tbody>
</table>

15. Most of the farmers used to sow enough of seed and then thin the plants afterwards. (Now the Question is this)
What would be the problem with planting the less seed to begin with?

a) Poor Germination
b) Thinned plants are used for animals.
c) Insect attack.
## Schedule for Measuring Differential Adoption of Improved Wheat Cultivation Practices Among Contact and Non-Contact Farmers

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Practices</th>
<th>Details</th>
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<tbody>
<tr>
<td>1.</td>
<td>Total area under wheat.</td>
<td>Hectares.</td>
</tr>
<tr>
<td>4.</td>
<td>Seed treatment. Chemical......Seed....In Kgs.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>No. of times chemical sprayed.</td>
<td>Two/One/Nil.</td>
</tr>
<tr>
<td>7.</td>
<td>Name and Quantity of fertilizer.</td>
<td>i) Kgs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Kgs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii) Kgs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Criss Cross.</td>
</tr>
<tr>
<td>10.</td>
<td>Plant protection.</td>
<td>a) Two times.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) One time.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Nil.</td>
</tr>
<tr>
<td>11.</td>
<td>No. of mechanical weeding used.</td>
<td>a) Two</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) One</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) Nil.</td>
</tr>
<tr>
<td>12.</td>
<td>Stage of crop at first irrigation.</td>
<td>Stage.</td>
</tr>
<tr>
<td>14.</td>
<td>Threshing.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Yield in Qts of High Yielding Varieties.</td>
<td></td>
</tr>
</tbody>
</table>
SCHEDULE FOR MEASURING THE FEEDBACK BEHAVIOUR OF FARMERS

You may be aware that agricultural scientists produce innovation for you at Research Stations. These innovations reach at your fields either directly through them or through extension agencies which play a linking role between you and agricultural scientists. Hence it is expected that such informations be conveyed to the researchers directly by you (farmers) or through the extension personal.

When the technology is released from the Research Station and start operating in your (farmers) fields then the following things may be observed as:

a) You may observe many problems.
b) You may observe many good points.
c) You may observe local adaptations.
d) You may observe performance according to recommendations.

Please check the items you actually did for conveying to the extension personal or to the researchers. Please indicate the number of times you did such acts as:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Acts as</th>
<th>MF</th>
<th>F</th>
<th>S</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Physically showed or talked to SMS during their visit in the area.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.</td>
<td>Physically showed or discussed to Junior Agriculture Assistants.</td>
<td></td>
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<tr>
<td>3.</td>
<td>Showed to the other Officers of the department during their visit.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.</td>
<td>JAA personally called in to discuss and see.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>SMS personally called in to discuss and see.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Wrote to JAA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Wrote to SMS.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Wrote to Researchers.</td>
<td></td>
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### Schedule for Measuring the Perception of Beneficiaries

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Source</th>
<th>Most Frequently</th>
<th>Frequently</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Radio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Exhibition</td>
<td></td>
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<tr>
<td>3</td>
<td>Extension Worker</td>
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<td>4</td>
<td>Newspaper</td>
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<td>5</td>
<td>Extension Literature</td>
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<td></td>
</tr>
<tr>
<td>6</td>
<td>Demonstration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Subject Matter Specialist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Television</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Source</th>
<th>Most Frequently</th>
<th>Frequently</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High Yielding Varieties</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Seed Rate Recommended</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Seed Treatment</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Recommended doze of chemical fertilizer</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Top Dressing of N2 fertilizer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Recommended sowing time</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Weed Control</td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>Disease/Insect Control</td>
<td></td>
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</table>