MANUAL

Rural Horticultural Work Experience (RHWE)
Programme

B.Sc. (Hons.) Horticulture

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Manual for
Rural Horticulture Work Experience (RHWE) Programme

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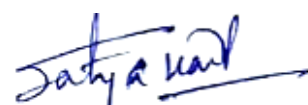Banda-210001 (Uttar Pradesh)

PREFACE

The Student READY Programme includes two major components viz. Rural Horticultural Work Experience Programme (RHWEP) and Experiential Learning Programme (ELP). The RHWE Programme has been designed with the objective of developing the students' understanding of rural life and to acquaint them from the different situations prevailing in villages with special reference to Horticulture. As per the recommendations of 5th Deans Committee Report, the RHWE Programme is consisting of three sub-components (village attachment, industrial attachment and educational tour). Village attachment provides them the insights of farmers' local situations and use of various horticultural technologies, while industrial attachment gives them hand-on experience of value addition and quality control of horticultural products under professional guidance. Educational tour to well-known institutions and organizations and interactions with their faculty, helps students broaden their knowledge and skills.

I am sure that the manual will guide the students in accomplishing the set objectives of RHWE Programme and will help the faculty members as well for successful implementation of the programme.

The tireless efforts of Dr. B.P. Mishra, Head, Department of Agricultural Extension and members of RHWE programme committee for bringing out this precious learning manual are highly appreciated. I extend my regards to Dr. S.K. Singh, Registrar, BUAT for his suggestions and support. I gratefully acknowledge the financial assistance received from the ICAR Development Grant for publication of this manual.

With best wishes,

Dr. S.V. Dwivedi
Dean
College of Horticulture

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Content

Students READY

(Rural Entrepreneurship Awareness Development Yojna)

Rural Horticulture Work Experience Programme (RHWEP)

Introduction

The purpose of education is man making and nation building. Further, it is to impart skills, knowledge and values to an individual for empowerment. Similarly, Agricultural education basically aims to develop skilled manpower to take up farming and undertaking research, teaching and extension for agricultural development. Agricultural education in India has undergone a constant transformation in the last four decades especially after establishment of Agricultural Universities. However, over the years, the inadequacy of agricultural curriculum of undergraduate degree programme to provide adequate level of professional competencies was often commented upon.

To reorient graduates of agriculture and allied subjects for ensuring and assuring employability and to develop entrepreneurs for emerging knowledge intensive agriculture, the component envisages the introduction of the program in all the agricultural universities as an essential prerequisite for the award of degree to ensure hands on experience and practical training. Considering the variation in different streams of agricultural education and feasibility, the Committee proposes to include the following five components, which are interactive and are conceptualized for building skills in project development and execution, decision-making, individual and team coordination, approach to problem solving, accounting, quality control, marketing and resolving conflicts, etc. with end to end approach in Student READY program.

   i. Experiential Learning/Hands on Training
   ii. Skill Development Training
   iii. Rural Horticulture Work Experience
   iv. In Plant Training/ Industrial attachment
   v. Students Projects

The students are required to have any three of the five components listed above depending on the requirement of their graduate education but it should be implemented for the complete year, so that their education upto level of III year may get right information in IV year and finally they should attend right stage of entrepreneurship.

Student READY- Rural Horticulture Work Experience (RHWE) & Placement in Industries. This program is taken up during the VII semester for a duration of 24 weeks and is allotted 0+20 credit hours. The program includes orientation, village stay, all India study tour, industrial placement program, report writing and final examination.

1. To develop in the students an understanding of rural life and to acquaint them from the different situations prevailing in villages with special reference to Horticulture.
2. To get familiar with the socio-economic situations prevailing in villages.
3. To provide an opportunity in practical training in Horticulture through work experience.
4. To develop communication skills in transfer of Horticultural technology.
5. To understand the Horticultural techniques followed by farmers and prepare production plans and improved technologies to suit the local situations in consultation with farmers.
6. To gain experience in quality control and value addition to horticultural products by exposure to field and laboratory conditions and professional guidance.
7. To develop confidence and competence in facing problem solving situations related to Horticulture.

Credits

The RHWE Programme carries 20 credits distributed for various units as below.

1. STUDENT READY - Placement in Industries (0+10)
2. STUDENT READY- Placement in Villages (0+10)

Duration

The Student READY-RHWE Programme will be for a period of one full semester and the programme will be offered during the seventh semester of the degree programme.

Components of RHWE Program

Sr. No.	RHWE Programme Components	No. of Weeks	Credits
1	Orientation Program	2	(0+10)
2	Village Stay/Attachment	12	
3	All India Tour	3	(0+10)
4	Placement in Industries/ICAR institutes and KVKs Program	4	
5	Report Writing and Final Examination	3	
	Total Credits	24	(0+20)

Registration

The students shall register the course RHWE-411: Rural Horticultural Work Experience (0+20) during the seventh semester.

Orientation programme

The students will be oriented on RHWE Programme before the placement training on the following aspects;

Part-I   -Need and importance of RHWE Programme

          -Objectives of RHWE Programme

          -Components of RHWE Programme

          -Plan of work in villages

          -Plan of work in Industries

          -Maintenance of records and work diary

          -Assignments and report submission

          -Evaluation procedure

Part-II -Interaction with faculty members to understand the latest developments in research and extension

Part-III -Technical sessions on
-Extension communication methods
-Data collection methods
-Participatory Rural Appraisal (PRA)

The Dean of the college, all the faculty members and students concerned will participate in the orientation programme. The officers of developmental departments, scientists from other research institutes, representatives from processing industries, NGOs and farmers will also be invited to this programme. During the orientation programme a detailed action – oriented idea is given to the students to gain practical work experience in Horticulture.

Advisory committee

There shall be an Advisory Committee consisting of the Dean as the Chairman and other selected faculty members of the college as the members and member secretary from extension department. The Committee is responsible to guide the RHWE Programme Co-ordinator for effective implementation. The committee shall meet periodically to review and monitor the programme.

Implementation

The Department of Agricultural Extension will be the nodal Department to implement the RHWE Programme under the overall direction and guidance of the Dean of the college.

Supervision and Guidance

The RHWE Programme Co-ordinator and faculty members from Advisory Committee are responsible for providing day to day guidance to the students, supervise their work and evaluate their programme.

Selection of Host institutes

The Indian Council of Agricultural Research (ICAR) institutes, KVKs, state developmental departments and different horti-based industries will act as host institutes. The students will stay in host institutes and carryout the RHWE Programme activities.

Selection of Villages

In selection of villages for RHWE Programme, the following criteria will be employed;

a. The farmers of village, who are practicing horticulture and other as many enterprises as possible.

b. The village should consist of at least 20-30 farm families.

c. The farmers who are co-operative and willing to entertain students to work with them.

d. The village should be located little away from the main road (but easily accessible) so as to experience rural atmosphere.

Contact farmers

Each student will work with atleast five farmers- marginal, small and large farmers and two progressive farmers during the entire period of village stay programme. The student will involve in all the farm operations on the farms of these contact farmers.

Visits to the village from host institutes

A batch of three to four students will work in a village. They will visit these villages every day and work with the contact farmer, in particular and all the farmers of the village, in general.

All India Study Tour

The students shall visit the ICAR institutes, KVKs, Universities, laboratories, commercial horticultural nurseries, Horticultural based Multi National Companies (MNCs), NGOs, etc. wherever possible. Further,

students will undergo advanced training on organic farming, vermi-compost, biological control measures and horticultural processing.

Placement in Industries

Student will be places in different Horti-based industries for four weeks. The industries may be from following sectors:
1. Commercial Horticulture
2. Protected cultivation of high value Horticulture crops
3. Processing of fruits and vegetables for value addition
4. Floriculture and landscape architecture
5. Bio-inputs: Bio-fertilizers and bio-pesticides
6. Mass multiplication of plant and molecules through tissue culture
7. Mushroom culture
8. Bee keeping
9. Other relevant sectors

Monitoring and supervision

During the entire RHWE Programme, the Co-ordinator or members from RHWE Programme Advisory Committee will accompany and stay with the students or the scientists /officials of host institutes will be given the responsibility of monitoring the work of students. They will supervise and guide the students to complete the day to day assignments as per programme. They will check their work diaries, assignments and help them in organizing extension work in villages.

Attendance

The different components of RHWE Programme is compulsory for all the students who have registered for course. They should maintain a minimum of 80 percent attendance in all the RHWE Programme components.

Any student who wants to leave the RHWE Programme on official work of the University like participation in sports, exams and other co-curricular activities, should have obtained written permission of the Dean of the

College, well in advance. However, the student shall complete all the pending assignments after return.

In the event of illness or unforeseen circumstances, a student may be permitted to leave the RHWE Programme for a maximum period of three days with prior permission of the teacher in-charge. However, the student has to make up the lost days of work by doing extra work for the period of his/her absence.

Review of work

The students will visit the villages/ attend the training on the scheduled days during the placement period and work on the scheduled assignments. The work of the students will be reviewed at the end of the week and the programme for next week planned.

Reports and work diary

The students shall maintain the work diary as per proforma. On completion of each component of RHWE programme a detailed report should be written. The work diary and reports shall be checked every day by the teachers in-charge and the reports are evaluated during concurrent and final evaluation.

Evaluation

The performance of the students in all the components and units of RHWE Programme will be evaluated by the RHWE programme advisory committee.

The overall RHWE Programme will be evaluated as follows:

1. Village Attachment   100
2. Industrial Attachment (External)   20
3. Industrial Attachment (Internal)   80
4. Assignments and reports   100
5. Examination/ viva-voce   100

....

                              Total   400

....

Note: A student shall earn a minimum grade point of 6.00/10.00 to pass the RHWE Programme.

Programme of work in villages

The students shall involve themselves in actual day-to-day farm operations along with their host farmers. The students shall maintain a record of work and submit a report on following aspects:

CROP PRODUCTION

1. Carryout and observe the following activities with your host farmers and submit a report.
   - Propagation methods of fruits and flower plants
   - Training and pruning of horticultural crops
   - Nursery raising of horticultural crops
   - Application of manures/fertilizers to vegetable, flower and fruit crops
   - Repotting of flower plants
   - Harvest of the produce
   - Storage and marketing
2. List out the different fruit crops grown in the locality.
3. Record and observe day-to day farm operations of the host farmers on major field crops.
4. Observe and record the forestry tree species available in the host farmer's farm land
5. Discuss about the acceptance to use of 'Bio-fertilizers'
6. Discuss about the importance of soil sampling for testing, fertilizer use and record the farmers response.
7. Discuss about INM strategies with scientists, extension personnel and farmers.
8. Assess the availability of improved farm implements and their scope.

9. Collect the information on expenditure, income and profit from livestock and poultry rearing.

CROP PROTECTION

1. Interact with farmers and identify common horticultural pests and diseases.
2. Discuss about the control measures followed by the farmers and informing recommended control measures.
3. Discuss about the merits of IPM with scientists, extension personnel and farmers.
4. Visit the apiaries, silkworm rearing units and silk reeling industries and record the problems and prospects.
5. Record the response of farmers regarding pesticide application, equipments and hazards of pesticide use.
6. Collect the damaged plants/plant parts and identify the causes.

PLANT SCIENCES

1. Record the introduction of new crop varieties in last five years.
2. Discuss about the potentials and risks of bio-technology with scientists, extension personnel and farmers.
3. Discuss about the role of bio-regulators, micro-nutrient formulations and anti- transpirants on horticultural crops with the farmers

SOCIAL SCIENCES

1. Discuss about the ongoing transfer of technology (TOT) programmes and rural developmental programmes by the ICAR institutes, KVKs and developmental departments and record the following items:
    a. Improved package of practices/technologies disseminated during last two years
    b. Communication methods used
    c. Response of farmers

    d. Problems faced by the developmental departments

2. Interact with farmers, middlemen, retailers on seasonality and prices of fruits and vegetables.

3. Workout the cost of cultivation for the major crops of contact farmers.

PRACTICAL EXTENSION WORK

1. Follow the **programme planning steps** to carry out RHWE activities during village visits/ village camp.

2. Carryout suitable **PRA methods** for data collection, extension programme planning and implementation.

3. Apply **SWOT analysis** for the farm production plans/ recommendations.

4. Identify **opinion leaders** in the village to carryout RHWE activities/ agricultural technology transfer.

   a. Socio-metric method

   b. Key informants method

5. Employ appropriate **extension communication methods** during village visits/village camp.

7. Organize **group discussions** (with atleast 10 farmers) on improved crop production methods.

8. Conduct **method demonstrations** on appropriate technology.

9. Organize a horticultural **exhibition** (as a team work)

SEVEN COMMANDMENTS FOR AN EXTENSION WORKER

Go to the people

Live among them

Learn from them

LOVE THEM

Plan with them

Start with what they know

Build on what they have

A DOZEN ATTRIBUTES OF AN IDEAL EXTENSION EDUCATOR

Abounding faith -in the importance of the work

Infinite tact- in meeting trying situations

Unlimited patience   - in overcoming village inertia

Endless good nature - in the face of all trials

A saving sense of humour- when nothing else will meet the situation

A large vision- of the work to be done

Ability to loose gracefully- and rebound after each defeat

Indomitable courage - in standing for the right

Grim determination - to see the work compelled

Contagious enthusiasm - to inspire local leadership

Unquenchable optimism - in spite of all discouragements

Unreserved belief- in the importance of farm family to the nation

(Alfred Vivian)

TEN QUALIFICATIONS FOR EXTENSION EDUCATOR

1. Basic knowledge of the physical, biological and social sciences that are significant to life in the villages.

2. Familiarity with reliable sources of important information.

3. Knowing channels of communication, both up and down, and ability to communicate effectively.

4. Understanding the background, philosophy, objectives, policies and organization of the extension system.

5. Skill in applying principles of behavioural sciences to extension teaching, supervision and administration

6. Understanding process by which village people and extension workers can co-operatively analyse local problems, arrive at potentially sound solutions and develop a local extension programme.

7. Ability to organize village people and stimulate leadership among them.

8. Knowledge of the problems and procedures of adult and out of school youth education.

9. Skill in organizing, interpreting and presenting basic economic, social, technical and scientific data to village life.

10. Understanding techniques and process of evaluating the effectiveness of an action programme.

EXTENSION EDUCATORS' ADVICE TO EXTENSION EDUCATORS

"The adviser does not hold the ultimate key to 'development".

Aim for credibility and confidence with an open mind !

"Listen, observe and say little."
"Respect the rhythm of the farm families"

Observe carefully and listen patiently !

"First get to know the conditions thoroughly and only
then start elaborating concepts."

"Be considerate towards the language and
customs of the farmers."

Get to know the country and its people well !

"Learn to see things with their (farmers) eyes".

"The farmer bears the consequences of any change on his farm".

Make the welfare of the farm family your centre of interest !

"Recognize the reasons for the use of
existing techniques."

"First find out what the farmer knows better than you."

Learn from the farmer's example !

"Farmers can often explain things to other farmers better than extension workers can."

"Help to solve problems without imposing your own opinion."

Recognize the farmers as independent and experienced partners!

"Don't give contradictory advice."

"The extension worker must be able to combine theory and practice."

Aim for professional competence!

"Discuss the innovations with the farmers and adapt them to suit their resources."

"Assess with the farmers the overall impact of an innovation."

Adapt innovations to local conditions and Assess them within the overall context!

"Stop a while, look back and reassess with your partners the work done."

"Listen to the farmer's opinions."

Plan and assess together with those Involved and those affected!

"The counseller must ask the right questions."

What have we forgotten?

- **Source:** Quotations from an enquiry among more than 80 extension workers in projects in Asia, Africa and Latin America, together with their recommendations (LBL, 1987 unpublished – Adoped from Bolliger *et al*, 1995).

Guiding Principles for Successful Extension Work

The following Do's and Don'ts may be taken to be a more or less comprehensive outline of the guiding principles for successful extension work.

1. Do be thorough and upto-date in your professional knowledge and skills.

2. Do study local conditions and practices including social background of people. (You have to learn before you teach).

3. Do keep village appointments.

4. Do introduce yourself during your initial contacts and indicate the purpose of your visit.

5. Do try to remember every villager as a person. (Develop good memory for faces and names).

6. Do greet every villager you know, (and do it every where).

7. Do make sure that you love villagers and you are sincerely interested in their welfare.

8. Do identify yourself with the villagers as much as possible.

9. Do be informal and polite but neither to effusive not too reserve.

10. Don't begin by giving undue promises of benefits.

11. Do look and listen. (Develop the art of listening).

12. Do use simple, natural local language which is meaningful to the villagers.

13. Don't criticize or condemn the villagers.

14. Do avoid arguments.

15. Do give credit to villagers for their good ideas or suggestions (Don't let it seem that all the new ideas are yours).

16. Do admit ignorance.

17. Don't correct a colleague or chide a subordinate in the presence of villagers.

18. Do talk in terms of the villagers' interests.

19. Do begin with simple and common needs which can be easily fulfilled.(Don't aim too high at first).

20. Don't try to solve villagers' problems for them. (Only help the people to help themselves).

21. Do insist that villagers or their representatives take part in preparing, executing and evaluating plants at the family, village and Block levels.

22. Do use local leaders and co-operate with all persons and organizations devoted to village improvement.

23. Do be the man behind the scenes.

24. Don't leave things half done. (Whatever you do, do it thoroughly, so as to inspire the confidence of villagers.)

25. Don't use any kind of compulsion (Emphasise the educational nature of extension work and avoid regulatory type of activities. Convince people through proper selection and combination of extension methods).

26. Do avoid giving anything free except your services.

27. Do guide the villagers in securing the needed supplies and services.

28. Do keep out of factions and politics.

29. Do try to extend the benefits of Extension to all groups and individuals. (Don't tie yourself only to a few villages or to a few good friends. Do show your concern for woman and youth as well as to weaker sections.)

30. Do record all your visits to your assigned villages (while the visit is still fresh in your mind.)

(Adivi Reddy, 2001)

I. INTERVIEW AND INTERVIEW SCHEDULE

Interview: An interview is a process of social interaction. It refers to a face-to-face interpersonal role situation in which one individual (the interviewer) asks questions to another individual (the respondent) to obtain answer relevant to the study/research problem.

An interview is an information collection technique in which a person talks with another person or group. The information gathered can be recorded on field notes, structured interview forms, summary reports, or other related forms.

Interview can be completely unstructured and spontaneous or questions can be predetermined or questions and response categories can be decided well ahead. The major advantages of interviews are that they permit in depth probes in particular subject area. The primary disadvantages are that they are usually; time consuming and costly and that interviewer must be specially trained.

Schedule: Refers to a set of questions, which are asked and filled in by an interviewer in a face-to-face situation with another individual.

KINDS OF SCHEDULE INFORMATION AND ITEMS

Structured (standardized) Interview Schedule

In this type of interview schedule, the questions, their sequence and their wordings are fixed. An interviewer may be allowed some liberty in asking questions, but relatively little. This liberty is specified in advance. Standardized interviews use the interview schedules that have been carefully prepared to obtain information pertinent to the research problem. Two types of structured interview schedule are;

1. Fixed Alternative (or closed) items: Fixed alternative items, as the name indicates, offer the respondent a choice among two or more alternatives. These items are also called closed or poll questions. The

commonest kind of fixed alternative is dichotomous. It asks for yes-no, agree-disagree and other two alternative answers. Often a third alternative, don't know or undecided is added. The respondents are required to select their responses from a set of alternatives.

For example, Organic farming is profitable to farmer: Agree/ Disagree.

2. Funnel question/ open end items: Open or open-end items are those that supply a frame of reference for respondents' answers, but put a minimum of restraint on the answers and their expression. While their content is dictated by the research problem, they impose no other restriction on the content and manner of respondent answers. The open-end questions provide full freedom to respondent.

For example, what is your opinion about organic farming?

SEMI-STRUCTURED INTERVIEW SCHEDULE

Semi-structured interview schedule used to neither ask the exact question nor elicit predetermined responses. This type of interviews are also used for stimulating the affective and value-laden responses, determining significance of attitudes and analyzing personal and social context of feelings and beliefs of people.

UN-STRUCTURED INTERVIEW SCHEDULE

Unstructured interviews are more flexible and open. Although the research purpose governs the question asked, their content, their sequence and their working are in the hands of the interviewer. Generally, no schedule is used.

II. QUESTIONNAIRE : Questionnaires are self administered survey forms that consist of a set of questions. In a questionnaire, the information one obtains is limited to the written responses of subjects to pre-arranged questions.

III. OBSERVATION METHODS: As a technique for gathering information, the observational method relies on a researcher's seeing and hearing things and recording these observations rather than relying on subjects' self report responses or statements. There are two types of observation methods;

1. Participant observation: When the observer participates with the activities of the group under study is known as participant observation.

2. Non-participant observation : When the observer does not actually participate in the activities of the group, but simply observes them from a distance it is known as non-participant observation.

PARTICIPATORY RURAL APPRAISAL (PRA)

Genesis: During the last three and half decades, there has been increasing awareness and appreciation of the alternative approaches to the understanding of rural systems world over. These developments were essentially based on the following premises:

> ➢ Farmer as a professional.
> ➢ Failure of conventional methods to understand farmers and farming systems.
> ➢ Failure in tapping indigenous knowledge for technology development.
> ➢ Farm and farmer house hold as the references for technology development and transfer.

Consequently, several new approaches have been developed for comprehensive understanding and appraisal of rural systems. These include Rapid Rural appraisal (RRA), Participatory Rural Appraisal (PRA), Participatory Learing for Action Methodology (PLAM) and so on. Among these, PRA has been very widely used in the area of rural development.

Participatory Rural Appraisal initially began as RRA in 1970s and later on it became PRA in 1980s. Later on Rapid has been replaced by 'Participatory' term. Now it is a process of learning and appraising which cannot be rapid. Hence, it is also called Participatory Action Learning Methods (PAL). Now, it is widely used in the area of rural development.

These are all because of the development professionals think their brief filed visits to villages make them to believe that they have seen accurate picture of rural life. More specifically, extension experts observed the biases in rural development approach. They are;

Spatial biases: In which the better off people living near roads and service institutions are visited and those who reside in remote areas and thus poor are neglected.

Time bias: In which visits are made during day according to free time of extension workers ignoring beneficiaries' free time.

People bias: In which professionals speak to rural leaders and articulate people who represent only the elite, dominant and wealthy groups.

Project bias: In which a show case village or technology is repeatedly shown to outsiders who get the impression that this is a typical one.

Further, Participatory Rural Appraisal has evolved from fallacies of top down research and many goodness's of bottom up approach sources. Some of these are:

Participatory Action Reflection Research

This emphasizes enhancement of local people awareness and confidence to empower them for action. This idea owes to the work of Paulo Freire theme that poor and exploited people should be enabled to analyse their own reality.

Agro-eco system analysis

Agro-eco system analyses system properties (productivity, stability, sustainability and equitability), which can lead to action through visuals, transacts and ranks.

Farming Systems Research

Farming systems research reveals understanding of complexity and diversity of rainfed farming by bringing out farmers unique capabilities.

Applied anthropology

Applied anthropology helped the development professionals to appreciate indigenous technical knowledge of farmers by observation, field learning and residing with farmers.

All these disciplines have contributed much to the development of PRA.

Participation and its varied dimensions: Participation is a human need. It is a process, where people express, share, contribute and act with mutual responsibility to promote mutual set of interests. Types of participation;

- **Passive participation** where people listen to outsiders.
- **Information givers** where people answer to questions.
- **Consultation** where outsiders define both problems and solutions.
- **Material incentives** where people give their labour, for food, cash and other incentives but have no stake in activities once incentives end.
- **Functiona**l – People participate to meet project objectives.
- **Interactive** – People participate in joint analysis leading to action plans by farming local institutions or strengthening of existing ones through systematic and structured learning process. People own structure or practices.
- **Self-mobilization** where people take initiative while developing contacts with external institutions for resources and advice, but they retain control on resources too.

This outlines participation is not mere attendance in meetings but its beyond of all these.

What is PRA?

- ➢ PRA is a methodology for interacting with villagers, understanding them and learning from them.

- ➢ PRA is a process of involving local people in the analyses and interpretation of a rural situation.

PRA is a family of approaches and methods, which enable the local people to analyze their situation to plan and act. Thus, PRA can be defined as an intensive and systematic learning experience carried out in a community by a multi-disciplinary team of researchers and or developmental personnel including local people. The method nets, in a relatively short time, peoples views about their world, along with their felt needs in addition to providing

valuable insights into the dynamics of rural life. PRA as a research development methodology has primarily been evolved to appraise the rural resources, problems and requirements by the rural people themselves under the facilitations of research and development workers.

PRINCIPLES OF PRA

1. **Optimal ignorance:** In order to minimize cost and time, the principle of optimal ignorance is applied by the facilitators which means *"Knowing what is worth knowing "* and knowing enough to serve the purpose and not knowing the rest or not trying to find out more.

2. **Seeking diversity:** PRA is concerned more with *"analysis of difference"* rather than looking for representativeness of results or data collected. it is looking for diverse rural events, different processes and forces explaining various relationships in rural communities.

3. **Off setting biases & triangulating:** PRA is a methodology to offset biases in rural survey. It aims at offsetting biases by relaxed way of understanding and not rushing, listening & not lecturing; probing & not speeding and looking for participation of rural people.

   Triangulating – cross checking of data in different ways. It involves conscious, non-random selection in different dimensions such as; team composition, unit of observation and PRA methods.

4. **Listening & learning:** Learning rapidly and progressively, learning through participation. Knowledge of rural people constitutes the base for the socio-economic and agro – ecological information. They have their experiences, their history, culture, ideas, priorities and preferences. Listening to rural people helps them in expressing their views. The greater the interaction with rural people, the greater the learning achieved. The amount of learning can increase progressively with participation of rural people.

OBJECTIVES OF PRA

1. For greater and better involvement of the villagers by learning about their perceptions, experiences and capabilities .
2. To generate information and collection of data for immediate or future use.
3. For estimating trends and ascertaining conditions of the issues at hand.
4. For validation or cross checking of data collected from other sources.
5. For training of different categories of persons involved in the development process (persons from Governments, NGOs, Banks, donor agencies, researchers, scientists, extension agents etc)
6. Learning about the impacts of earlier or on-going policies and programme and to frame new ones.
7. For research studies on use of PRA and to suggest improvements in its methodology.

THE FOUNDATIONS OF PRA

I.   Congenial attitude and behaviour
   ➢ Attitude of listening, learning, respect for rural people
   ➢ Friendly behaviour
   ➢ Friendly body language
   ➢ Respect for knowledge & experience of rural people

II. Mutual sharing
   ➢ Willingness to participate
   ➢ Sharing perceptions & problems, knowledge, experience etc

III. Methods of PRA

PRA METHODS

I. Methods supportive of PRA:

    a. **Primary** – Letters, court records, minutes, memoranda notes and diaries.

        Secondary – Surveys, books, reports, plans, official record, census records, project reports, maps, aerial photographs, journalistic articles, news paper cuttings, research papers …etc.

b.Direct observation

II. Methods with direct participation

Diagrams   are integral part of PRA

        Helps for consensus, reduces conflict

        Helps cross checking

        Discussion enriched

        Presents greater details

        Creates interest

        More objective than verbal

        Error rectified quickly

        Facilitates exchange of views

        Easy to make with local materials
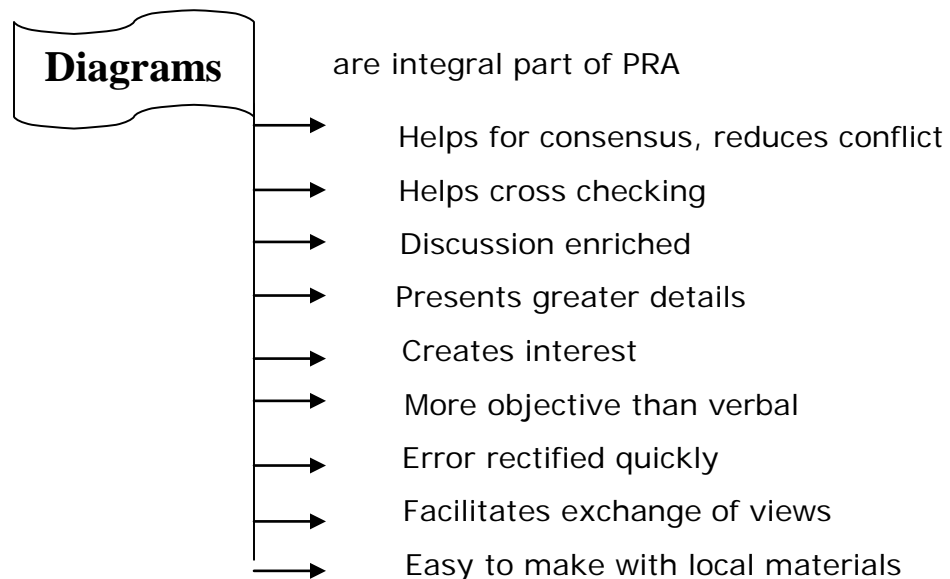
1. Collection of basic information of the village: This technique enables to document in a relatively short time the basic data of a village such as demographic, socioeconomic, agriculture and animal husbandry, pollution and problems. In doing a PRA within a reasonable time frame, the PRA team has to collect the basic information of the village by referring to the records available in the village panchayat office and also by interacting with the Key Informants (KIs) and other villagers.

2. Agro-ecology Map

Agro-ecology map depicts the relation between agriculture and environment which includes average temperature, average rainfall, fragmentation of holdings, natural vegetation, drainage system, weeds, etc. Encourage farmers to draw this map. Identify major landmarks. Identify systems (village) and sub systems (crop land, orchards, common land etc.) boundaries, show the neighboring villages or other features like river, hillocks, government land, forests etc., where the boundary of village ends. Depict crops, animals, natural resources like soil type, water resources (wells, river, channel, ponds etc.), forest, common property resources (CPR), use of locally available resources or whatever stakeholders observe during the walk. Write in local language along with English translation. It differs from village map. Give the direction and write down the names of villagers.

3. Social Map

The Social map is map of the village drawn without scale but enables to understand and simplify locations, and structure of houses and other social facilities. This map is made by the villagers based on their understanding, indicating their social setting on the map.

Once a social map is made by the villagers, it becomes easy for them to describe locations within the village in terms of the characteristics and conditions of the household, the ownership of houses and other key features. In addition, it provides information regarding the dependency rations, beneficiaries under state/central government programmes, health characteristics, and literacy. It is an useful basis for identifying problems in different households.

4. Resource Map

Like social map, resource map is a simple drawing indicating resource positions of the village.

It is useful to explore and understand the resource base of the village, village people's perception and experiences with regard to utilization of resources; access to public resources, constraints and opportunities.

5. Time Line/ Historical profile

Time line approach is a method of knowing a history of major recollected events in a community. It indicates a casual link between past and present. This method is also known as historical profile. In this technique, an historical account is given by the villagers of how different aspects of village life have changed and made impact on the social, economic, and agro-ecological bases in the village under consideration.

It is useful for sensitizing the research and developmental agents to the importance of the past for understanding the present. Historical profiles reveal important information for understanding the present situation in a community. It gives detailed account of the past on how things have changed over time, relationship and trends, the history of technology development process and like. It facilitates discussion of experiments already carried out by the villagers, crop histories; infrastructure facilities; livestock breed histories; fisheries; tree species; change in land tenure; outbreaks of epidemics; droughts and famines; changes in village administration and organization; education change; population change; major political events; ecological degradation; folklore etc. Precisely, it provides a summary of the key historical events in a community in relation to their socio-economic and political relevance for the present situation.

6. Time Trends

It is a simple technique of depicting quantitative changes over time in different aspects of rural life such as yields, price, population, livestock population and area under cultivation.

It is useful to investigate into the changes taken place over time say for the last ten years in quantitative items, which are easily amenable to line diagram or bar diagram. These aspects could be yields; area under cultivation; prices; rainfall; population; livestock population; interest rates; migration; birth and death rates; malnutrition rates; area under high yielding varieties and any such directly quantifiable factors/variables.

7. Venn Diagram

The Venn diagram is known after the man who created it. It is a diagram showing the key institutions and individuals in a village community and their relationships and importance for decision-making.

As indicated, a Venn diagram explores the relationships between and among key individuals, rural institutions, informal associations and such individuals and organizations including private and non-government which matter in the village development and up-liftment.

8. Transect/ Farm walk

A Transect is a systematic exercise conducted by a multi-disciplinary team. It is a diagram of main land use zones. It is also called as farm walk.

The purpose of a transect or a farm walk is to explore and study main land use zones. It compares the main features, resources, utilization pattern, problems and opportunities in each identified zone. The participatory transect walks systematically involve walking with the villagers through an area and discussing about different aspects of land – use and agro – ecological zones in the village observed during the walk.

Transect walk to discuss;
-rural ecology, diversity
-soil conditions, land use patterns, crops
-livestock, microenvironments, problems etc.
-Outsider learns more – in-depth – visual exposure of physical features.

9. Mobility Map

It is both a data collection and an analysis tool. It is a tool to know the contacts of an individual or group of individuals of a particular village society with reasons, thereof. It is also used to indicate the interactions within communities.

Spatial mobility is used as an indicator for a person's contact with, and knowledge of, the outside society. The mobility-maps of rural people based on socio-economic aspects, gender, and age groups, enable us to record, compare, and analyse the interaction within communities and with other communities in a village, and to know the degree of freedom, empowerment,

decision making, education, cosmopolitness, and consciousness dimensions of a given society. Precisely, it helps us to know the degree of mobility of rural groups and communities and importance of different areas.

10. Seasonal Calendar and Seasonal Analysis :

The Seasonal calendar is an exercise of showing the main activities, problems and opportunities through the annual cycle in simple diagrammatic form. It is a series of diagrams depicted on a single sheet of paper.

To explore and identify the days, months of relatively greatest difficulty and vulnerability. It helps identifying significant variances, which are likely to have an impact on village people's lives.

Seasonal diagramming used for:

Each season - own activities & problems, climatic conditions, crops grown, availability of water food, fuel and fodder, employment, workload, disease, food calendar, health calendar.

Eg. Year round vegetable availability in Pasighat.

11. Livelihood analysis

Livelihood analysis is an analytical technique exploring and obtaining information on behaviours, decisions, and coping strategies of individual households.

It is to explore and interpret the behaviours, decisions, and coping strategies of households with different socio-economic background. Factors such as: household size and composition, number of labour migrants in the household, proportion of income by source, expenditures, livestock and land ownership, seasonality, relative income, credit and debt etc. could be included in the analysis.

12. Sustainability analysis

It is a high order analytical exercise useful for the periodic review of development activities.

The purpose of sustainability analysis is to generate a high level of anticipation in electing the responses pertaining to sustainability issues- like

losses, deteriorations in land, water, vegetation and other elements of eco system due to biotic and abiotic factors. The sustainability matrix sharpens the group's analytical skills about identifications of determinants of sustainability and helps bringing out important issues. It encourages the PRA groups to ask a number of key questions, which in turn lead to decisions regarding the continuation and modification of the activities. Group discusses each determinant and makes an action plan for follow-up using technological information available.

13. Wealth Ranking

The 'Wealth Ranking' is an analytical exercise carried out by local villagers based on their own criteria such as income, assets, Employment status and other local measures of well-being.

The purpose of wealth ranking is to explore the village people's local wisdom, their criteria used in classifying the entire households of a village wealth ranking is based on the assumption that community members have a good sense of who among them is more or less well-off, poor or below poverty line. The purpose is to investigate perceptions of wealth differences and inequalities in community to discover local indicators and criteria of wealth and well-being; and establish the relative position of households in a community. And finally to know the poorest of the poor, and their relative poverty.

14. Ranking

Ranking means placing items or objects or activity in order following single or joint criteria. Ranking methods include preference ranking, direct matrix ranking, and pair wise ranking. It is an analytical tool.

It is to explore preferences of individual community members; their ranking criteria, and priorities. It enables us to understand people's decision-making process according to usefulness and need. Ranking done by women enables us to understand their priorities in the development process and provides better understanding of the agro-ecosystem.

15. Semi structured interviews
- ➢ few preset questions
- ➢ further questions based on answers
- ➢ informal interview
- ➢ open end questions

16. Do-it yourself
- ➢ To understand realities, to get real experience
- ➢ For support building, to get rural taste
- ➢ Activity of rural people – outsider doing himself/herself
  Eg. Ploughing a field, Fuel wood/ Drinking water or fodder collection by rural women.

Enhancing participation in PRA

Participation of people is a key to success of any programme. It is also true with PRA. Hence, it is essential to involve all the sections of village such as farmers, landless agricultural labourers, farm youth, women etc. It is also necessary to involve and enlist support of other significant constituents of the village-local leaders, youth, school teacher etc.

1. Protocol: Success of PRA depends upon villagers and power structure. Therefore, it is better to have preliminary meeting with the village elders, opinion leaders, chairman and youth leaders a few days before the exercise. This is an important step as it gives the sanction of legitimacy for both insiders and outsiders.

2. Village campaign is necessary in all PRA. It breaks barriers between the outsiders and villagers leading to free movement in village and free access. This in turn develops a feeling of warmth and well being and equality among people.

3. Ice breakers: Social games and entertainment are better ice breakers. Even the farm and home visits, general meetings and discussion meetings lead to better participation of people.

4. The 1:1 ratio: Representation from villagers for PRA exercise should be a minimum as many as PRA staff. For psychological security, 1:1 ratio (outsider to villagers) and still better are 1:2 or 1:3 ratios. This gives villagers confidence, numbers to volunteer and participate effectively. Because of these, villagers take pains to make us understand and cross verify information among themselves.

5. Friendly enquiry vs. lecture: As accurate and relevant information gathering is the objective of PRA enquiry/probing is certainly more effective. Lecturing should be eliminated. Even frequent interruptions are worse. It should be facilitation during interventions of outsiders.

6. Preliminaries/Methods: Social mapping and time line generate a great deal of interest and enthusiasm among the participants from both sides. These draw out participation besides enthusing their interest. These can be launching methods for subsequent methods

Tips on locations, organization and materials

- PRA is not an exercise of point of entry. It needs personal contact over a period of time.
- The number of households in the village should be between 30 and 100. For a bigger village, it can be restricted to one part of the village.
- There should be good acquaintance between outsiders and insiders before exercises.
- As far as possible, use of local materials like rangoli power, sticks, stones, seeds etc. are preferred over pens and papers etc.

Guidelines during interview

List of DON'Ts

1. Force ideas into the community
2. Interrupt/confuse
3. Give hope (expectation)
4. Talk personal issues
5. Dominating
6. Lecture
7. Focus on one person
8. Use technique, which people do not understand
9. Be too serious
10. Divert subject/issues
11.   Promise

List of Dos

1. Introduce yourselves
2. Smile
3. Patience
4. Encourage participation (people)
5. Good team work (effective)
6. Talk less and talk seriously (respect, cultural consideration, understanding people)
7. Use Peoples language
8. Give examples of pilot projects
9. Flexibility
10. Follow what the people say
11. Take people seriously
12. Meet people when they are free
13. Use simple methods
14. Avoid arguments
15. Members of the group must understand their roles and responsibilities
16. Ask one question at a time
17. Be attentive.
18. have proper seating arrangement
19. Manage those who dominate in the group
20. The activities should be inspiring to the participants
21. Acknowledge the participants
22. Proper timing of visit
23. Choose an appropriate and comfortable place for participants
24. Document all activities that you do
25. Understand village protocol/dynamics
26. Visit a small/manageable group
27. Avoid side discussion/cross checking

Difference between conventional data collection methods and PRA

	PRA	Conventional
Developed in	Late 1980's/1990's	Very much used from many decades
Degree of formality	More informal	More formal
Key resource	Local people's knowledge & analytical capabilities	Investigator's ability to extract information
Degree of reality of information	More realistic	Always not so realistic
Elements of interest	More interest to rural people	Not so interesting(monotonous)
Mode of information gathering	Through listening and learning	Extracting information
Respondents	Active Empowered through participation	Passive
Method of information collection	Visual & participatory diagramming	Verbal & interviewing discussion method.
Investigator/outsider role	Initiator, catalyst and facilitator	Investigator
Insider/respondent's role	Presenter, analyst & planners	Respondents for interview/survey.
Ideal objective	Learning from insiders by outsiders and empowerment of local people	Collection of required information from insider's by outsiders.
Model	Participatory – interactive	Interview method
Type of study	In-depth	Superficial
Cost effectiveness	More	Less
Expertise	Requires multidisciplinary experts	Normally single investigator
Training for conducting	High expertness/training needed for the PRA team personnel	High expertness not necessary
Interpretation of situation	By local people	By investigator
Tools	Simple diagrams, semi-structured schedules	Complex structured schedules
Type of data	Qualitative & quantitative	Generally quantitative
Accuracy	More minute details also collected	Collecting accurate data is difficult.
Approach for Information collection	Generally group approach (group of respondents involved)	Generally individual approach
Validation	In-group approach, reliable & valid data is possible through cross checking and solving difference of opinion among the group itself	Cross checking is difficult
Resources	Less time consuming and less expensive	More time consuming & more expensive.
Group psychology	Group psychology create conducive atmosphere for listening & learning facilitates group action	Not so.

PROGRAMME PLANNING AND ITS USE IN DATA COLLECTION

Planning is essential for any systematic attempt to achieve desired goals. The desired goals of the students under RHWEP are given in the chapter one of this manual as objectives. Planning helps to identify the educational objectives, facilities the selection of learning experience to attain these objectives and evaluation of the results in relation to objectives. Programme planning means that it involves the series of actions/ steps which culminate in the accomplishment of a goal. In the process, the students will get the first hand knowledge and experience of developing and implementing useful programme for the benefit of farmers. Also they will be exposed practically on how to collect data, how to identify the needs/problems of farmers. In addition, how to develop objectives and selection of technology to solve the problems.

Steps in programme Planning and implementation process

1. Collection of facts
2. Analysis of situation
3. problems identification
4. Deciding objectives
5. Developing plan of work
6. Implementing plan of work and calendar of operations
7. Evaluation at each step
8. Reconsideration

1. **Collection of facts:** It is the starting point of programme planning process. Pertinent data may be collected from the available records, survey and PRA methods. Information relating to the people ,their enterprises, level of technology , facilities and constraints, role of village councils/ panchayats, cooperatives and other organizations in the area.

2. **Analysis of the situation:** The data and information collected are then analyzed in an unbiased way, keeping in view the feelings expressed by the client system. This shall help in understanding the situation in its proper perspective.

3. **Identification of the problems**: A correct analysis and interpretation of the data shall help in correctly identifying the problems. There may be many problems, but only the urgent and significant ones which may be solved with the available resource and within the limits of time, should be selected. Selection of a large number of problems which can not be properly managed may lead to a failure of the programme and generate frustration among the people.

4. **Determination of objectives and goals:** The objectives are then set forth based on the significant needs identified. The objectives should be direct and stated in clear terms.

To make the objectives realistic and actionable, there is need to state them in terms of specific goals. In the determination of goals it may be necessary again go through the data and information analysed; to find out what could actually be done in the existing situation, with the available resources and time, which will be compatible and with which the people shall cooperate. It is necessary to discuss with the local people and local institutions, which will be compatible and with which the people shall cooperate. It is necessary to discuss with the local people and local institutions, which shall also legitimize the programme planning process.

5. **Developing plan of work and calendar of operations:** The plan of work should be in written form and shall indicate who shall do what job i.e. what the change agent system and the client system shall do; which institutions, organizations, service departments shall be involved; what will be the financial requirement and how it shall be met; what arrangements shall be made for marketing of the produce, training of the farmers and so on. The plan should have all the essential details and no important point should be left out.

The calendar of operations shall be prepared on the basis of the plan of work and shall specify when a particular work shall be done, preferably mentioning date and time; how much quantity of different inputs, including credit shall be required and when these must be made available; when where and for how many days the farmers and farm women shall be trained, who are the specialists to be involved in training and preparing the handouts,

when the publications shall be ready for distribution etc. That is, the calendar of operations shall specifically state how and when all the significant activities shall be performed.

6. Follow through plan of work and calendar of operation*:* This is not a routine type of work as many people may think. Training of participants, communication of information, conducting method demonstrations, making regular visits and monitoring are some of the important functions the extension agent shall perform at this stage. The work shall include solving unforeseen problems and taking corrective steps. The performance of the extension agent and the organizational support received at this stage may make the difference between success or failure of a programme. Obtaining feedback information as to what is happening to the farmers after introduction of new technology is extremely important at this stage.

7. Evaluation of progress: Evaluation is the process of determining the extent to which we have been able to attain our objectives. All programmes must have an in-built system of evaluation to know how well the work is done. It should be a continuous process. Not only to measure these end results but also to ensure that all the steps are correctly followed. Evaluation may be formal or informal, depending on the importance of the programme and also on the availability of trained manpower, funds, facilities and time. The programme evaluation involves the following three essential steps-

-Setting up of standard or criteria in relation to the objectives.

-Collection of information.

-Making judgment and drawing some unbiased and valid conclusions.

Evaluation has a number of advantages, they are;

➢ Evaluation helps to establish a bench mark – the situation at the start of the programme.

➢ Evaluation shows how far our plans have progressed

➢ Evaluation shows weather we are proceeding in the right direction. It may point out omissions, recommend changes and suggest new directions.

➢ Evaluation indicates the effectiveness of a programme

- ➤ Evaluation helps to locate strong and weak points in any programme or plan.
- ➤ Evaluation improves our skills in working with people.
- ➤ Evaluation helps us to determine priorities for activities in the plan of work .
- ➤ Evaluation brings confidence and satisfaction to our work

8. Reconsideration and revision of the programme: On the basis of the results of evaluation, the programme should be reconsidered and revised if needed. This reconsideration should be done not only with the participant, but also with the scientists, administrators in extension organization and local bodies like panchayats etc.

Reconsideration shall help in making necessary corrections and modifications in the programmatic reconsideration, emphasis should be on the removal of technical defects, if any and how to obtained more cooperation and involvement of the participants and various organizations. The purpose of such an exercise is to make the extension programme more effective by removing the defects.

SWOT

SWOT, is the acronym for the process involving documentation and analysis of strengths, weakness, opportunities and threats and has recently found favors with rural developmental practitioners. Application of SWOT analysis for agriculture development now assumes greater relevance. The allocation of finite resource – mix (men, money, material, time) for realization of agricultural and rural development calls for the application of SWOT analysis.

S- Strength is the basic asset of the enterprise/organization that would be provides competitive advantage for its growth and development.

W- Weakness is the liability of an enterprise/organization that can create a state of time and situation specific disadvantage for its growth and development.

O- Opportunity is the ability of the enterprise/organization to grow and achieve its specific objective in a given situation.

T- Threat is a situation that blocks the abilities of the enterprise/organization to grow and develop for meeting its ultimate goal.

SWOT parameters may differ from enterprise to enterprise or organization to organization.

LEADERSHIP IN RURAL AREAS

Leader: Leader is person who has been spontaneously considered or chosen as being influential.

Leadership: Leadership is a process through which influencing the attitudes and actions of one or more persons leading towards the achievement of some goal/purpose.

Types of Leaders in rural areas

1. **Operational leader:** The person who actually initiate action within the group, regardless of whether or not he holds an effective office.
2. **Popularity leader:** The popular person is elected to a position of leadership because he is well liked by the members.
3. **Assumed representative leader:** Refers to a person selected to work with a Committee or other leaders because the latter have assumed that he represents another group they desire to work with. He may or may not be a leader of the group.
4. **Prominent talent leader:** The person who exhibits an outstanding ability and accomplishment in respective fields. It may include experts and intellectual leaders. Eg. Artists, musicians, etc.
5. **Professional leader:** The professional leader is one who has received specific specialized training in the field in which he works full time as an occupation and is paid for his work. Eg. Extension Officer.
6. **Lay leader:** Lay leader may or may not have received special training and is not paid for his work and generally works part time with local group organizations. Lay leaders also called as volunteer leaders or local leaders or natural leaders. Eg. Youth Club President.
7. **Autocratic leader:** Operates as if he cannot trust people. He thinks his subordinates are never doing what they should do: that the employee is paid to work and therefore, must work.
8. **Democratic leader:** Shares with the group members decision making and the planning of activities. The participation of all is

encouraged. He works to develop a feeling of responsibility on the part of every member of the group. He attempts to understand the position and feelings of the employee.

9. **Laissez-faire leader:** Believes that if workers left alone the work will be done. He seems to have no confidence in himself. If at all possible, he puts off decision-making.

Roles of leadership

1. Group Spokesman
2. Group Harmonizer
3. Group Planner
4. Group Executive
5. Group Educator or Teacher
6. Symbol of Group Ideals
7. Group Discussion Chairman
8. Group Supervisor

Qualities of Leader

1. Physical fitness.
2. Mental ability (intelligence)
3. Sense of purpose (having definite ideas regarding the aims of the group).
4. Social insight (sensitivity to other person's position, problems or points of view).
5. Communication (including good listening and speaking).
6. Love for people (friendliness without favourtism or without giving scope of indiscipline)
7. Democracy (giving members equal opportunities for participation etc.).
8. Initiative
9. Enthusiasm

10. Authority (based upon mastery of knowledge and skills in a particular field).
11. Decisiveness (ability to make good and prompt decisions or judgement).
12. Integrity or character.
13. Teaching ability.
14. Convictions and faith.

Opinion Leadership

Opinion leadership is the degree to which an individual is able to influence informally other individuals attitudes or overt behaviour in a desired way with relative frequency.

Opinion Leader is a person / individual who leads in influencing other opinions in informal ways. They are also known as fashion leaders, information leaders, influencers etc.

Characteristics of Opinion leaders

1. External Communication
2. Accessibility
3. Social Status
4. Innovativeness

External Communication: Opinion leaders have greater exposure to mass media that followers because they attend to mass media channels more compared to other. They are more cosmopolite than their followers. They have greater change agent contact than followers.

Accessibility: Opinion leaders to relay their personal messages about innovations, they must have direct dialogue with their followers. Therefore, the opinion leaders must be accessible one such indicator is social

participation. Opinion leaders have greater social participation than their followers.

Social Status : Opinion Leaders have better social status than their followers.

Innovativeness: Opinion Leaders are more innovative than their followers because they adopt new ideas earlier than their peers.

Identification of opinion leaders

The two important methods of identifying the opinion leaders are :

1.   Sociometric method
2.   Key informants rating

1.   Sociometric method

It involves asking questions to the members as to whom they sought for information or advice about a given topic, issue etc. So opinion leaders are those members of a system, who receive the greatest number of sociometric choices.

It is the most valid method of identifying the opinion leaders as it is measured through the eyes of the followers. But it necessitates interrogating a large number of respondents in order to locate a small number of leaders. And this is most applicable if all the members of a social system are interviewed rather than few in the social system.

2. Key informants rating

Here the judges or key informants are asked to identify the opinion leaders for a given topic. Key informants are specially knowledgeable about the patterns of influence in a system.

Types of opinion leaders

1. **Polymorphic opinion leaders:** Here opinion leader acts as a leader for a variety of topics.

2. **Monomorphic opinion leaders:** The tendency of an individual to act as an opinion leader for only one topic.

Role of opinion leaders in agricultural development process

1. They play important role in the diffusion of agricultural innovations.

2. They build the confidence among the followers about any practice.

3. Stimulation for the co-ordinated action, which is beneficial for the society.

EXTENSION TEACHING METHODS AND AIDS

General Meeting

Meaning

It is a mass contact method wherein a large number of heterogeneous people meet together with some purpose to share their knowledge and experience to satisfy a natural desire for social contact. Generally meeting includes such of the meetings, which are conducted to inform and to create personal contact with large number of people.

Purpose

General meeting is employed to introduce students to the villagers and to inform them about the future educational activities in the villages.

Procedure

There are three phase viz., planning conducting and follow up.

1. Planning
1. Selection of topic/theme
2. Identification of suitable time
3. Selection of place
4. Selection of speakers, chairman, etc
5. Give adequate publicity
6. Physical arrangement

Conducting

Conducting a meeting is the actual running of a meeting. The two aspects to be considered are programmed procedure and audience participation.

1. Start the meeting on time.
2. State the purpose and programme of the meeting.
3. Make brief introductions at the beginning of the meeting.
4. Focus attention on central theme.
5. Keep meeting moving on schedule
6. Use appropriate audio-visual aids.

Audience participation

1. Watch reactions of audience, encourage audience participation
2. Close meeting on time with brief summary by the Chairman
3. Give recognition to the individuals who have actively participated
4. Hand-over relevant folders or pamphlets at the time of break off
5. Take names of those interested for further information or follow up

Follow-up

A meeting should never be regarded as an end in itself. The process of meeting should be an integral part of the whole educational activities i.e. your extension activities in the villages.

Farm and Home Visits

Meaning

It is a direct contact by the students with the host farmer or the members of the family at his home or on his farm for a specific purpose.

Purpose

1. To get acquaintance and get confidence of the farmer and to give a courtesy call
2. To discuss individual problems
3. To find out problems
4. To obtain or give information
5. To teach skills

Procedure

1. It should be made with a definite purpose.
2. Punctuality and consideration of the time of the farmer should always be borne.
3. Schedule of visits should be worked out to save time.
4. Remote and unfrequented farms and homes should always be kept in view.
5. Use this method to reinforce other methods.

During Visits, the following points are to be followed:

    a.   Develop conversation on interested topics

    b.   Let the farmer do most of the talking and do not interrupt him

    c.   Speak only when he is willing to hear

    d.   Talk in terms of his interest

    e.   Use natural and easy language, speak slowly and cheerfully

    f.   Be accurate in your statement

    g.   Don't prolong arguments

    h.   Let the farmer take the credit for good ideas

    i.   Be sincere in learning as well as teaching

    j.   Record the visit – date, purpose ,accomplishments and commitments

    k.   Hand over a folder or leaflet etc., pertaining to the topic discussed, if necessary

    l.   Follow up the visit

Group Discussion Meeting

Meaning

Group discussion meeting is a method of democratically arriving at certain decisions by a group of people taking into consideration the views of members.

Purpose

1. To prepare a favourable climate for discussion and help in better understanding of the problem by pooling,

2. To facilitate in-depth discussion by involving a number of participants,

3. To generate new ideas and methods and select the rational ones through group interaction, and

4. To develop a favourable attitude and commitment for action through group involvement.

Planning for conducting Group Discussion Meeting

1. Select the topic based on the needs of the people.
2. Collect enough technical information on the topic.
3. List out and collect the objects, specimens, samples, models and other materials required for effective teaching.
4. Prepare the teaching materials (slides, charts, flannel graphs, etc)
5. Decide the effective speakers for the meeting.
6. Give wide publicity for the meeting.
7. Make physical arrangements for the meeting.
8. Decide the place, time and venue of the meeting in consultation with the villagers.

Conducting the meeting

1) Start meeting in time.
2) Physical arrangement should be proper .
3) Logical way of presentation of the topic and initiation of discussion, involvement of the farmers at each stage.
4) Use effective teaching aids to support teaching.
5) Employ model, specimen and samples during presentation.
6) Encourage the farmers to participate in discussions.
7) Identify the shy farmers and encourage them to participate in meeting actively.
8) Avoid arguments with the farmers.
9) Present the cost-benefit ratio of the new practice discussed.
10) Use local language during the presentation.
11) Distribute relevant literature at the end of the meeting.
12) Thank the audience.

Evaluation

1. Counting the farmers present in the meeting.
2. Active participation of the audience.
3. Counting the number of persons who accept the matter/ technical know –how discussed.

METHOD DEMONSTRATION

Meaning

A method demonstration is a short time demonstration before a group to teach as how to carryout (skill) an entirely new practice or an old practice in a better way.

Purpose

1. It teaches skills and to stimulate people for action.
2. To build up learner's confidence and satisfaction on the practice.

Points to be considered while conducting method demonstration

1. Method demonstration should be timely
2. Give advance publicity to build up the interest and secure wide participation.
3. Use materials that are easily available to the rural people.
4. Clarify doubts, but avoid arguments.
5. Appreciate the methods already in use by the group.

Conducting method demonstration

The procedure of conducting method demonstration is divided into three stages.

I. **Planning stage**
(a) Analyze the skills required
(b) Inform well in advance about the time, place and date of conducting method demonstration.
(c) Ensure the materials required for conducting method demonstration well in advance.
(d) Select the place where all the farmers could see the method demonstration.

II. **Conducting stage**
a) Be at the spot early to check up equipment and materials required for conducting method demonstration.
b) Students have to practice by themselves before carrying out method demonstration.

c) Make proper arrangements to facilitate all the participants to have a clear look at demonstration and to take part in the discussion.

d) Conduct demonstration systematically.

e) Give opportunity to individuals to practice the skill

f) Distribute leaflets or any other literature related to the demonstration.

III. **Evaluation Stage**

(a) List out the number of participants with names

(b) Get the names of participants who come forward to take up a particular skill shown in the method demonstration.

(c) Publish the news story on the demonstration.

(d) Follow up the participants who have practiced skills.

(e) Entrust the leaders with the task of watching the adoption of new practice.

Result demonstration

Meaning

Result demonstration is a demonstration conducted to show the worth of a new practice over the existing one at a particular point of time in a given place and this will be conducted by the farmer himself under the direct supervision of extension worker. It needs careful planning, substantial time and record keeping.

Result demonstration can be used when a) the technology is new to the area and b) the extension worker fails to convince the farmers about the technology by using other methods.

Purpose

1. To show the worth of new technology over the existing one.

2. To create confidence about the technology in the farmer as well as extension worker.

3. To educate the other farmers about the technology.

Procedure

The different steps to be followed in conducting the result demonstration are

1. Analyse situation and determine the need for demonstration
2. Decide upon specific purpose and write down the statement of objectives.
3. Work out the design of the demonstration i.e plan the result demonstration
4. Select the demonstrator.
   a) Consult with local leaders and select a demonstrator who commands the confidence and respect of his niegbours and who is interested improving his practices (He should be typical farmer of the area). Select the demonstrator in a meeting, if possible.
   b) Visit the prospective demonstrator to make sure that all conditions for success of demonstrations are available.
   c) The demonstrator should be convinced of his responsibility for the successful completion of the demonstration and its effect upon the community.
   d) The demonstrator should be willing for the use of demonstration for teaching purposes through publicity, pictures, meeting, tour etc.
   e) The demonstrator should secure the necessary physical equipment, supplies and materials to carry out the demonstration in successful way.
   f) Explain and agree upon procedure with the demonstrator and leave written instructions preferably.

Select the plot
1. The plot should be located preferably in a road side for easy accessibility and publicity.
2. The field should be representative of the farmers in the village (neither too rich nor too poor).

Start the demonstration
b) Give wide publicity before starting the demonstration
c) Get all the materials ready.
d) Have written plan of work indicating specific tasks.

e) Start the demonstration in the presence of the villagers.

f) Arrange for a method demonstration where a skill may be involved in the beginning of the demonstration.

g) Mark the demonstration plots with large signs, so that all can see.

Use of demonstration

➢ Farmers should be taken to field during the growth of the crop to explain the difference.

➢ Conducting result demonstrations meeting at the time of the harvest and yields should be compared with reference to cost.

➢ Photographs and slides should be taken for further use (educational use).

CAMPAIGN

Meaning

Campaign is a well-organized plan for bringing about widespread adoption of a particular practice. It is a concerted teaching effort for a set period of time. People are repeatedly motivated to adopt a solution to a problem.

Hints to successful campaign

1. Give an appropriate solution to problems recognized by people.
2. Deal with a problem that affects large number of people
3. Offer solution that the people can and will accept.
4. Emphasize one idea at a time.

Planning

Local people be involved in planning

1. Analyze the situation.
2. Select the practice to promote
3. Set objectives.
4. Plan for evaluation.
5. Decide how to involve people
6. Prepare the schedule events.
7. Arrange for equipment and supplies.

Conducting

1. Give publicity.

2. Conduct meetings.

3. Make farm and Home Visits

4. Launch your campaign

5. Demonstrate recommended practice, through exhibits, contests, slogans, signs, posters, wall posters, newspapers, radio and television.

End campaign dramatically

1. Set a definite time to end the campaign.

2. Feature the final day so the people can share the satisfaction of completing the project.

3. Encourage all the people took part in the campaign to come and rejoice its success.

4. Invite important persons.

5. Recognize community leaders for their work.

6. Report results to the people.

Evaluation

1. Counting the people who have participated.

2. Measure what changes were expected either in the knowledge or in skills or in attitudes or in the adoption after the campaign.

3. What evidences can be noticed with respect to changes?

4. Who is adopting recommended practice after the campaign?

Evaluation is a continuous process, but the final evaluation is necessary to provide adequate guides for future programmes.

EXHIBITION

Meaning

It is a systematic display of models, charts, photographs, maps, specimens or any other materials in a predecided place and time.

Points to organize an exhibition

1. The objective of the exhibition must be clear and specific.
2. Decide the theme of exhibition based on situation and problem.
3. As far as possible local materials need to be used for exhibition.
4. The place, date and time of exhibition should be announced well in advance.
5. All the items should be labeled in the local language.
6. Arrange the exhibition in logical sequence.
7. Use three-dimensional materials.
8. Ascertain the opinion of the visitors to exhibition to know the effectiveness of exhibition.
9. At the end of the exhibition, furnish participants with relevant literature.

FIELD VISITS

Meaning

It is a small group of interested farmers led by the students who visit the plots/sites to study some current problems, differences in local production practices etc. It is powerful teaching device, which provides scope to observe, and analyze with the guidance of the students/ extension person/ scientists.

Purpose

1. To elicit the information from the farmers.
2. To inform and convince the farmers about the problems existing in the field.
3. To educate other farmers about the demonstrated technology.
4. To diagnose the technical problems.

Procedure

The procedure varies according to the purpose

a. If it is for the identification of field problems, the field visit may either be pre-planned or spontaneous.

b. If it is to observe the difference between farmers, an element of surprise and impartiality can be achieved by a visit without pre-planning

c. If it is to study the impact of new technology, proper preparatory work is helpful.

In all these cases,

    i)   Protracted deliberations must be ensured on the points observed, lessons to be drawn and utilization of these lessons.

    ii)   Preparedness and advance thinking on these points are necessary.

    iii)   Follow-up action is an integral part of the method.

FIELD DAYS

Meaning

It is an educational opportunity, planned and organized to involve interested farmers, farm leaders and organizational representatives. Focus of attention is on the recommended new technology to highlight its impact, as well as to facilitate an exchange of views and opinions among the participants, leading to the formation of firm attitudes and opinions regarding adoption of the new technology.

Purpose

1. To observe the new technology in its application and to evaluate its suitability and benefits.

2. To facilitate discussion among groups of participants resulting in firm views on the recommended technology

3. To create a favourable climate for a rapid diffusion of the technology.

4. To build up opinion leaders and facilitators.

Procedure

The planning, conducting and follow-up aspects of the activity are explained in detail since it is one of the most common and useful extension methods.

Planning

A field day is usually organized around a Result Demonstration.

a) An impressive Result Demonstration is selected and at an appropriate stage the field day is scheduled.

b) The participants of the field day are selected including farmers, farm leaders, organizations and extension specialists and advance intimation is given to them.

c) Events for the day are decided and planned.

d) Necessary banners, posters, support literature and extension aids are arranged.

e) The concerned demonstration-farmer is briefed and guided to conduct the activity.

f) Local support for the field day is ensured.

Conducting

With the help of the other extension personnel and the local farmers, the field day is conducted as planned.

a) The activity is started on time.

b) The objectives of the demonstration are explained by the extension worker.

c) The procedure followed in the demonstration, step by step is explained by the demonstrator farmer.

d) The participants, in small groups, are led around the demonstration plot.

e) A sample harvest is arranged, if possible.

f) Systematic discussions on all relevant aspects including the economics are arranged with demonstrator-farmer and extension specialists.

g) Main conclusions are summarized for all to know.

Follow-up

A successful field day leads to further adoption of the recommended technology.

a) Farmers, who are interested in the new technology, are identified for follow-up.

b) The demonstrator-farmer and others, who are capable are encouraged to help other interested farmers.

Farmers training

Meaning

It is an intensive educational activity with a focus on the development of selected skills.

Purpose

1. To build up the interest of farmers to lead them to adoption,

2. To enable farmers, learn the new technology unhurriedly, its background, its application and its consequences,

3. To enable the farmer to learn and practice the technology under comparable or stimulated conditions,

4. To make use of group dynamics for reinforcing learning and facilitate horizontal learning, and

5. To make use of progressive farmers and facilitators in future extension work.

Procedure:

Training consists of three phases

1. Pre-training

1. Understand the situation

2. Delineate the task of people who perform it i.e. task group

3. Efforts to motivate the participants and giving more publicity

2. Training

1. Put it away more convincing to the participants.

2. Incorporate demonstrations to improve the skills.

3. Trainers should visualize the actual situations of farmers and should tailor it accordingly.

4. Provide opportunity to the participants to clear their doubts regarding the subject.

3. Post -training

1. Assess the effectiveness of training
2. Ensure conditions for improved performance by participants in their fields.
3. Plan follow up action.

Community work

It is an intensive activity involving the people of a community with a common goal for overall development.

Example:

1. Tree planting
2. Construction/ repair of roads
3. Village sanitation

Steps to be followed while conducting community work

1. Conduct group meetings to identify the topic/need.
2. Identify the local leaders, who are interested in community work.
3. Give wide publicity about the programme to involve the people as much as possible.
4. Mobilize the resources needed for the community work.
5. Fix the responsibilities to the individuals to complete the work in time.
6. Start the programme in time as scheduled/ as published earlier.

AUDIO-VISUAL AIDS

The principles discussed here apply to both audio and visual materials, particularly with regard to preparation, apply more to non-projected visuals. From the viewpoint of audience appeal and interest, audio-visuals must have the following characteristics:

- Please the senses
- Be accurate
- Be understandable
- Convey upto-date ideas
- Be simple in design
- Fascinate, intrigues and stimulate to action.

Planning

Planning for preparation and selection of visual aids is the first and foremost step in effective use of Audio-visual aids. The best material is the actual object. If the actual object cannot be used, the alternative is either to select from the readymade aids available or to prepare the new ones. The following factor should be taken into consideration when ever visual aids either prepared or selected.

1. Nature of audience and their level of understanding.
2. Facilities available-help of artist, duplicating materials etc.
3. Teaching objective-what are the changes to be brought? Knowledge attitude and skill.
4. Cost of the aid
5. Students' competency
6. Complexity of subject matter.
7. Familiarity of the audience with the subject.
8. Size of audience.
9. Availability of raw materials
10. Variety-obtained through use of different materials colours, sizes etc., to hold interest.
11. Convenience – portability etc.

PREPARATION

The following "ABC" principles are to be considered in preparation.

Attractiveness: Useful "attention getters" are; colour, size, shape and illustrations.

Brevity: The message should be brief, can easily be read in short time.

Clarity: The message should be clear, Layout with sufficient surrounding white space for words, illustrations.

PRESENTATION

After selecting the place for the presentation it is necessary to arrange the setting so the best teaching can take place.

Arrange the area properly, check seating for the audience, allow adequate ventilation, reduce possible distractions and provide good lighting.

Use a variety of colourful visual aids. They help the pace of the presentation and help hold audience attention. Prepare by rehearsing in order to make a smooth presentation.

A comfortable place is important. Arrange your audio-visual aids in sequence. Make sure that all aids in good working order before the presentation. Display only one aid at a time. Keep aids out of sight until ready for it. Stand beside the aid but not in front of it. Remove all unrelated materials. Avoid any misunderstanding by discussion and application. Distribute the handouts.

TIPS FOR EFFECTIVE USE OF VIDUAL AIDS

1. More visualizations, less text-a picture is worth thousand words, the old saying goes.
2. Legible aids, the visual should give the basic idea quickly and simply.

3.   Letter should be written large enough.

4.   Each visual should count.

5.   Provide variety.

6.   Familiarity with the use of aids.

7.   Testing should be done in advance.

PREPARATION OF VISUAL AIDS

Whatever type of visual aids one wants to prepare, first and foremost thing after planning is the preparation of layout or design.

Layout or Design: is nothing but arrangement of all the elements in the available space of the visual to accomplish the desired effect. Important elements of layout are:

1. Caption   2. Lettering   3. Spacing   4. Illustration

5. Colour   6.Balance   7. Contrast

1.   Caption

Caption should be clear, brief, understandable, catchy and relevant for example;

-     MILK FOR MILLIONS

-     KILL THE PEST GET THE BEST

2.   Lettering

Lettering is an important visual means of imparting information to an audience. The audience has to: read fast, read little and read easily. Therefore, we must learn the kind of lettering which is easy and quick to write.

Effective lettering makes the aid more meaningful and attractive. Basically, all good lettering depends on Style, Colour, Size, Spacing between letters, shape of the letter and colour contrast.

Lettering can be arranged in many ways vertically, horizontally, diagonally and zig zag way. Height of the letter depends upon the size of audience. If the last row of audience is about 30 ft. from the place of visual,

the height should not be less that one inch in the case of non-projected aid and in ½ projected aid. Generally, the thickness of the line of the letter should not be less than 1/5th of the height of the letter.

The following table will help in determining proper letter size.

Distance from farthest viewer (in feet)	Minimum height of letter (in inches)	Thickness of letter (1/5 of height)
10	0.5	0.1
20	0.7	0.14
30	0.9	0.18
40	1.4	0.28
60	2.1	0.42
80	2.8	0.56
100	3.5	0.70

Shape of letter: Unusual shapes should be avoided, because they are hinderence to clear understanding of the message. Always use letter of the usual shape.

3. Spacing

Spacing of letters properly is an important item in the preparation of visuals.
Style: Always prefer letters having same thickness of the line throughout the letter.

4. Illustrations

Illustrations are must in the visual aids. There are many varieties of illustrations, photographs, cutouts, pictures, like drawings, symbols and stick figures. The use of particular type of illustration depends upon many factors, like skill of students and availability of the visuals etc.

5.   Colour : Colours are in visuals for :

1.   Attracting attention

2.   Emphasis or contrast

3.   Helps to create a mod

4.   Making distinctions

5.   Heightening our reconstructions of reality

6.   Other ways to contribute to learning process

6.   Balance

To avoid top-heaviness or top-sidedness in a layout the total effect must be one of balance.

In the formal type, balance is created by symmetrical arrangements of all the elements in the layout. A more interesting often is the informal one, in which the element appears to be balance, even though each side of the arrangement is different.

7.   **Contrast**

The contrast between letters, illustrations and their back ground is an important factor in their readability. Black and darker colours are usually stronger. They have a higher readability then the lighter shades do. It is best to select a colour which contrasts well with the background. Light coloured letters should be used on a dark back ground or dark letters on a light coloured back ground.

GRAPHIC AIDS

Graphic aids are those, which through a combination of drawings, words and pictures are designed to help an educator to communicate ideas and facts clearly and effectively.

Graphic aids that are commonly used in extension work include charts, posters, flash cards, flannel graphs, cartoons etc.

PREPARATION OF POSTERS

A poster is designed to make a public announcement of a special idea. It is so designed in colour and format as to catch the eye, with a single message. It is essential a device for drawing attention, creating awareness or

triggering the desire for further action, posters can play a very useful role in creating interest in the viewers.

The important features of a good poster are :

1.   Simplicity – it is simple in design and colour.
2.   Topical – appropriate to the season and situation.
3.   Brevity – a few words conveying a single message.
4.   Attractive – it stands out to catch the eye.
5.   Interesting – it is related to the immediate interest of the intended audience.

A poster is a visual combination of bold design, colour and message which is intended to catch and hold the attention of the passer by long enough to implant or to reinforce a significant idea in his mind.

Outline:

i.   Picture should tell the story at a glance.
ii.   The information presented should be timely.
iii.   Decide the audience.
iv.   Put down on a sheet of paper the message and rough pictures in simple form.
v.   Express the message or idea by concise, meaningful words and picture.
vi.   Make a concise, striking slogan with a central idea.
vii.   Space the picture and caption for balance.
viii.   Rough out the poster in small size.
ix.   Work out a colour scheme.
x.   Poster should set out condition and recommended action.
xi.   Size of poster must be large enough to be seen easily –

22″ x 28′   -   Small size
28″ x 44″   -   Large size

PREPARATION OF CHART

Charts can be considered as combinations of graph and pictorial media designed for the orderly and logic visualizing of relationships between key facts and ideas.

Charts serve to highlight important points or other material in a presentation. They are visual symbols for summarizing, comparing, or performing other helpful services in explaining the subject matter. They are often referred to as "symbolized" visuals.

Out line:

i.   Layout a plan for the chart on a sheet of paper with pictures and captions.

ii.   Short and simple and appropriate caption is very important.

iii.   Make the chart simple

iv.   Make the chart large enough to be seen easily

v.   Make it attractive using effective colour contrast.

vi.   Keep margins.

vii.   Achieve contrast by using dark letters against light background or *vice versa.*

viii. Avoid presentation of too many ideas.

Types of charts: There are many types of charts. The most commonly used forms are flow, tree, outline and tabular charts.

1. **Flow charts or organizational charts:** the flow charts are shown by lines, arrows, etc. They show organizational structure of departments, institution etc.

2. **Tree charts or stream charts:** As the name suggests the tree chart is developed from a base composed of several roots which lead to a single trunk. The branches in turn representing a research study before a group of scientists.

3. **Outline charts**: The organization of content into key points and sub points, which a communicator may do on the chalkboard, is also a useful chart form.

4. **Tabular chart:** It can be used in any studies were the relationship of time and another factor is to be shown. Here the data represented in ordinary sequence. A rail or airtime table is familiar example. One of the unique values of tabular chart is its ability to show time relationships.

5. **Graphs:** Graphs are visual representation of numerical data.

    Types of graph: Line graph, Bar graph, Pie graph/circle graph

PREPARATION OF FLASH CARDS

Flash cards are set of paper cards flashed one by one in a logical sequence before an audience to emphasize important ideas in a presentation. The message on each card is brief and simple. Flash card usually involves photographs or still pictures illustrations, captions etc, and are the simplest of graphic aids. They are very convenient and effective for communication of improved technology to the rural population.

The size of the flash cards should be such that the group can see but small enough to handle conveniently for a group of 30-50 people. Use flash cards of 15"x20" each. For a small group, say 10-25 people, we can use flash cards of 10'x12' size. The number of flash cards should be 10 to 12 usually suffice for one topic to hold the interest of audience.

Outline : Skill and experience are essential for preparation of flashcards.

i. Outline the series of pictures relating to topic on a sheet of paper and number it in sequence.

ii. Draw only one picture on each flash card, large enough to be seen.

iii. Simple meaningful sketches are attractive to farmers.

iv. Use meaningful colours for emphasis

v. Prepare short captions and points for each flash card.

vi. Write caption and points on each picture in brief on the back of proceeding flash card for guidance.

vii. The story should be explained as each card is held before the group.

viii. One idea or one picture on each flash card is the best.

Agricultural Journalism

Principles of Rural Journalism

1.   **Use simple language:** Explain the technical terms in short and simple sentences, using common words, which have, concrete meanings. Abstract ideas and 'jargon' should not be used. Avoid using textbook language.

2.   **Structure and arrange arguments clearly:**   Present ideas in a logical order, clearly distinguishing between the main and the side issues. Presentation must be clear, with the central theme remaining visible so that the whole message can be reviewed easily. Separate key points or sections of the message by use of careful layout and typography.

3.   **Make main points briefly**: Restrict arguments to the main issues, clearly directed towards achieving stated goals without unnecessary use of words.

4.   **Keep important information at the top:** Organize the write-up like an inverted pyramid, keeping the most important information at the top, so that if some portion from the bottom is deleted during editing, it won't affect the write-up much.

5.   **Use lively pictures and photographs:** The pictures and photographs should be simple, bold, with good composition and good contrast of light and shade, so that the message intended to be conveyed is clearly brought out.

6.   **Prepare a stimulating write-up:**   The presentation should be interesting, inspiring and sufficiently diversified to sustain audience interest. Accuracy, Brevity and Clarity (ABC) are fundamental to a good presentation of information.

Farm Publication

FARM PUBLICATION is a class of publications prepared by the extension agency in printed form, containing information relating to the improvement of farm and home. Farm publications are of various types such as leaflet, folder, bulletin, newsletter, journal and magazine. Farm publications may be used singly or in combination with other extension methods.

Leaflet: It is a single printed sheet of paper of small size, containing preliminary information relating to a topic. It is made as and when needed. Generally distributed free-of-cost.

Folder: It is a single printed sheet of paper of big size, folded once or twice, and gives essential information relating to a particular topic. It is printed as and when required. Generally distributed free-of-cost.

Bulletin: It is a printed, bound booklet with a number of pages, containing comprehensive information about a topic. It is made as and when necessary. A small price may be fixed on some important bulletins.

Newsletter: It is a miniature newspaper in good quality paper, containing information relating to the activities and achievements of the organization. It has a fixed periodicity of publication. Generally distributed free-of-cost.

Journal/ Magazine: These are periodicals, containing information related to various topics of interest not only for the farmers but also for the extension agents. It has a fixed periodicity of publication. Generally supplied against pre-payment of subscription for a particular period.

Farm publications are extremely useful to the literate farmers. Even illiterate farmers can make use of them with the help of literate members in their family. Farm publications are used by all types of extension functionaries, input dealers, bank personnel and media-person. These may be used in most of the individual, group and mass methods.

GENERAL HINTS FOR WRITING LITERATURES

1. Use of understandable words

    (a) Frequently used words

    (b) Short

    (c) Non technical

2. Use of strong words

    (d) Active verb

    (e) Specific words

3. Eliminate unnecessary word(s)

4. Use of clear and short sentences

5. Use of short paragraphs

6. Use of personal or human-interest words

7. Stress the important items

8. Organize message title, headings, and subheadings properly

9. Write to express but not to impress

10. Include variety in your writing

Writing Feature Story for Newspaper/ Magazine

      Feature story is factual, may be a story of explanation, interpretation and description of discussion. Its purpose may be to tell something people need to know how something is done or how some one else has done something.

Procedure:

 1. Collection of facts – or information for the feature story.

              While collecting the information for the story, the following series of questions may be used:

(a) Does this information have value for the farmer?

(b) How much money would it cost to put recommendations into practice?

(c) How much return will accrue from the investment?

(d) How long will it take to reach the recommended goal?

(e) Is it practical and feasible?

(f)   Have dependable people been the innovators?

(g)   Is it possible to see, as well as to read about the results?

(h) Is the story convincing?

Writing technique

(a) **The lead**: The first paragraph of the feature story must have the readers-interest pull that is mandatory in the news story. The reader's interest must be nabbed, if the writer is to lure him through the paragraphs that follow. While writing the lead of first paragraph, remember the following steps.

Use plain statements of facts

Start with a quick round up of major factors of the story of its central idea summarized for the readers' acceptance or rejection.

-Using striking statements and cite direct quotations.

The body: After writing the lead paragraph, the writer must organize the following paragraphs (the body) into a logical and convincing narrative that will sell the reader on the value of recommendations and suggestions. The length of his story is first based on the material and the policy of the publication for which he is writing. Usually, 600 words what newspaper editors can use. There is no room in a feature story for fights or fancy, since the reader wants facts, not frictions.

Use of illustrations: Pictures have tremendous reader-interest appeal. Hence, use illustrations in the feature story.

NEWS STORY: Any new idea, event, situation or development, which creates interest among large number of people, is commonly considered as news. People are more concerned with, news that affect themselves, their families, their neighbours, their community and their village.

For example, Innovations in agriculture reduction in cost of cultivation, high yields in crops, new varieties, meetings, demonstrations, exhibitions, Krishimelas all have special interest to the farm people.

A good news writer should have interest in farm people, curiosity about them, their affairs and problems.

Writing news story – graphically follows inverted pyramid structure.

TITLE

LEAD

MAJOR DETAILS

MINOR DETAILS

Title: Should be very attractive.

Lead: Catches readers interest and briefly gives important facts.

New story also answers to the 5 W's and the H.

Who -   farmer/ Extension worker/ Scientist.

What -   Practice/ Technology

Where-   Place

When-   Season/ time

Why-   Net income or drought condition.

How-   Details of cultivation.

CHECK LIST FOR EVALUATION OF NEWS STORY

A.   Has news value because:

- Interests many readers

- Information timely and localized

- Most important ideas first

- Written in third person

- No editorial opinion

- No propaganda

B   Has all-important facts because:

- Includes who, what, why, where, when, how (at least those that are important).

- Includes full names and positions of persons mentioned in story

- Has definite time, accurate location

- Explains details when necessary.

C   Has reader interest because:

- Words easily understood

- Sentences and paragraphs short

- Facts definite
- Concrete examples used
- human interest emphasized

D.   Everything in story double-checked for accuracy.

Difference between news story and feature story

News Story	Feature Story
1. News Value	1. Newness is not emphasized
2. No choice in topic	2. Wide Choice in selection
3. Gives less details	3. More details
4. No flexibility	4. Flexibility in writing
5. Information giving	5. Motivation
6. Author is not identified	6. Authors are identified
7. No opinion	7. Writer can give his/ her opinion

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APPENDICES

RHWE-411: Rural Horticultural Work Experience Programme

Daily Diary of the Student

Date:……………….

Name of the student: …………………………………………………………

Name of the village: …………………………………………………………

Name of the contact farmer(s)………………………………………………..…

…………………………………………………………………………………..

Units	Abstract of work done and new experience gained
I. Crop production	
II. Crop protection	
III. Plant sciences	
IV. Social sciences	
V. Practical extension work	
Any other (Specify)	

Signature of the student with date

Signature of the supervisor with date

RHWE-411: Rural Horticultural Work Experience Programme

Weekly Diary of the Student

From:……………….to……………..

Name of the student: ……………………………………………………………….

Name of the village: ……………………………………………………………….

Name & address of the contact farmer(s)……………………………………….

………………………………………………………………………………..

Week Days	Abstract of work done and new experience gained
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Signature of the student with date

Comments of the supervisor:

Signature of the supervisor with date

RHWE-411: Rural Horticultural Work Experience Programme

Interview schedule

General information about the village

1. **Name of the Village:………………………………………………………**

    Name of the Circle: :…………………………………………………

    Name of the District: :…………………………………………………..

    Name of the State: :………………………………………………….

2. **Population of the Village**

	Total population	Population depends on Agriculture	
		Number	**Per cent**
Adult (Male)			
Adult (Female)			

3. **Land use pattern**

Sl.No.	Category	Area
1.	Total Geographical area	
2.	Area under Agriculture	
3.	Area under Horticulture	
4.	Area under Forest	
	Any others (specify)	

4. **Sources of irrigation**

Sl.No.	Source	Number	Net area irrigated
1.	River		
2.	Canal		

3.	Tank		
4.	Open wells		
5.	Bore wells		
	Any other (specify)		

5. Total number of households

Sl.No.	Households	Number	Per cent
1.	Marginal farmers		
2.	Small farmers		
3.	Large farmers		
4.	Agricultural labourers		
	Any other (specify)		

6. Cropping pattern adopted in the previous year

Sl.No.	Type of land	Crops grown		
		Kharif	Rabi	Summer
1.	Dry land			
2.	Garden land			
3.	Wet land			

7. Weather during different months

Months	Total Rainfall (mm)	No. of rainy days	Average temperature

	Normal	Pre. year	Normal	Pre. year	Normal	Pre. year
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						

8. Subsidiary enterprises

Sl.No.	Enterprise	No. of families engaged
1.	Dairy	
2.	Piggery	
3.	Poultry	
4.	Sheep	
5.	Goat	
6.	Fisheries	
7.	Apiculture	
8.	Sericulture	
	Any other (specify)	

9. Farm equipment and machinery

Sl.No.	Equipment/ machinery	Number
1.	Tractor	
2.	Power tiller	

3.	Power sprayer	
4.	Combined harvester	
5.	Threshers	
6.	Drip irrigation units	
7.	Sprinkler irrigation system	
8.	Bio- gas unit	
9.	Solar power system	
	Any other (specify)	

10. Details about different organisations/ institutions/ infrastructure facilities

Sl.No.	Organisations/ institutions/ infrastructure facilities	Present in the village	If not in the village	
			Nearest village	Distance (in KM)
1.	Regulated market (APMC)			
2.	Pri. Agril. Credit Co-op. Soc.			
3.	Hospital			
4.	Veterinary hospital			
5.	Post office			
6.	Primary school			
7.	Secondary school			
8.	High school			
9.	Bus facility			
10.	Bank			
11.	Vegetable Market			
12.	Telephone			
13.	Drinking water facility			
14.	Agril. input agency			
15.	Fair price shop			

16.	Agril. Office			
17.	Police station			
	Any other (specify)			

11. Agro-based processing industries

Sl.No.	Processing centre	Present in the village	If not in the village	
			Nearest village	**Distance (in KM)**
1.	Flour mill			
2.	Rice mill			
3.	Fruit processing unit			
	Any other (specify)			

12. Mass media facilities

Sl.No.	Mass Media	Number
1.	News paper subscribers	
2.	Magazine subscribers	
3.	Radio sets	
4.	TV sets	
5.	Telephones	
	Any other (specify)	

13. Availability of inputs and implements

Sl.No.	Inputs	Available in the village	If not in the village	
			Nearest village	**Distance (in KM)**
1.	Seeds			
2.	Fertilizers			
3.	PP chemicals			
4.	Sprayers			
5.	Implements			

6.	Tractor			
	Any other (specify)			

14. Agricultural credit utilization pattern (Number of farmers)

Type of loan	Institutions								
	Co-operatives			Commercial banks			Regional rural banks		
	MF	SF	LF	MF	SF	LF	MF	SF	LF
Short term									
Medium term									
Long term									

MF-Marginal Farmer, SF- Small Farmer, BF-Big Farmer

15. Marketing facility

Sl.No.	Commodity	Agency	Available in village	If not in the village	
				Nearest place	Distance (in KM)
1.	Fruits a. b. c.				
2.	Vegetables a. b. c.				
3.	Food Grains a. b. c.				
4.	Poultry eggs				
5.	Poultry birds				
6.	Sheep				

7.	Goat				
8.	Pig				
	Any other (specify)				

16. Ongoing transfer of technology/extension /rural developmental programmes

Sl.No.	Name of the Programmes	Implementing agency	Beneficiaries
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

RHWE-411: Rural Horticultural Work Experience Programme

Interview schedule

Information about the Farm family

1. Name of the farmer…………………………………………………………

    & Address   ………………………………………………………….

                    …………………………………………………………

                    …………………………………………………………

2. Family members

Sl. No.	Name	Sex	Age	Edn.	Relationship with head	Occupation	Income Rs.

3. Land holding and irrigation

Sl. No.	Particulars	Area (Ha)		
		Irrigated	Un irrigated	Total
1.	**Operational holding**			
	a. Owned			
	b. Leased-in			
	c. Leased-out			
	d. Total cultivated area			
	e. Horticultural crops			

	f. Field crops			
	g. Fallow land			
	h. Waste land			
	Any other (specify)			

4. Livestock

Sl. No.	Particulars	No.	Breed	Present value

5. Farm machinery and implements

Sl. No.	Particulars	No.	Year of purchase	Value Rs.
1.	Tractor			
2.	Power tiller			
3.	Iron plough			
4.	Wooden plough			
5.	Plank			
6.	Sickles			
7.	Spade			
8.	Thresher			
9.	Sprayer			
10.	Duster			
11.	Pump set			
	Any other (specify)			

6. **Cropping pattern, production and farm income from crops**

Sl. No.	Particulars	Area		variety	Sowing time	Harvesti ng time	Total Prodn. (Kgs)	val ue Rs.
		Irri	Un irri					
	Summer crops							
	a.							
	b.							
	c.							
	kharif							
	a.							
	b.							
	c.							
	Rabi							
	a.							
	b.							
	c.							

7. Contact with extension personnel

Sl. No.	Extension personnel/scientist	Frequency of contact		
		Regular	Occasional	Never
1.	Horticulture			
2.	Agriculture			
3.	Veterinary & AH			
4.	Fisheries			
5	Input agency representative			
6.	ICAR/KVK			
	Any other (Specify)			

8. Informal sources of Horticultural information

Sl. No.	Source	Frequency of contact		
		Regular	Occasional	Never
1.	Local leaders			
2.	Friends			
3.	Relatives			
4.	Neighbours			
	Any other (Specify)			

9. Benefits derived from developmental departments

Sl. No.	Particulars	Developmental departments			
		DoH	DoA	DRDA	Any other (specify)
1.	Name of the program				
2.	Type of benefits				
	a. Material				
	b. Monetary				
3.	Amount spent by you				
4.	Total expenditure				
5.	Are you satisfied with present arrangements?				
6.	If not satisfied, suggest modifications.				

10. **Crop production practices followed by the farmer in previous season.**

(collect information for two major fruit and two vegetable crops grown by the host farmer)

Name of the crop:……………………………………..

Sl. No.	Practices	Adopted
1.	Area of the crop Season Variety used Seed rate (Kg) Method of sowing/planting Spacing followed (m or cm)	

2.	Seed treatment
	   a. Chemical used
	   b. Quantity
	   c. Purpose	

3.	Organic manures Type (FYM/Compost/GM) Quantity Own/Purchased Value (Rs.) If self, method of preparation Time of application Frequency of application Reasons for using a. b. c. If not why?	
4.	Fertilizers N	

	P_2O_5	
	K_2O	
	Recommended dose /used	
	Method of application	
	Time of application	
	Basal (Type of fertilizer)	
	N	
	P_2O_5	
	K_2O	
	Top dressing (Type of fertilizer)	
	N	
	P_2O_5	
	K_2O	
	Secondary/micro nutrients	
	Are you aware? (Yes/No.)	
	INM	
	Are you aware? (Yes/No.)	
	Reasons for adopting	
5.	Irrigation	
	Method-flood/drip/sprinkler	
	Frequency	
	Time of irrigating crop	
	Basis of scheduling	
6.	Weed control	
	Type of weeds	
	a.	
	b.	
	c.	
	Method of weed control	
	Have you used weedicides?	
	If yes, name the chemical	
	Amount spent (Rs.)	

	Time of application	
7.	Diseases observed a. b. c. Symptoms a. b. c Chemicals used a. b. c Quantity a. b. c Time & method of application a. b. c Amount spent (Rs.) a. b. c	
8.	Insect pests Name of the pest a. b. c. Symptoms of damage a.	

	b.	
	c	
	Chemicals used	
	a.	
	b.	
	c	
	Quantity	
	a.	
	b.	
	c	
	Time & method of application	
	a.	
	b.	
	c	
	Amount spent (Rs.)	
	a.	
	b.	
	c.	
	IPM	
	Are you aware?	
	Reasons for adopting	
	a.	
	b.	
	c.	
9.	Other practices (Specify)	
10.	Yield (Kgs)	

	Main product	
	By product	

11. Production problems

Sl. No.	Production problems	Response Yes/No.
1.	Seed/ planting material	
	a. Prices are very high	
	b. Quality of seed is not good	
	c. Not available in time	
	d. Low reliability	
2.	Labour	
	a. Skilled labour not available	
	b. High wage rates	
	c. Unskilled labour not available	
3.	Irrigation	
	a. Perennial sources not available	
	b. Irrigation source not reliable	
	c. Irrigation facility not available	
4.	Fertilizers	
	a. High prices	
	b. High transportation charges	
	c. Desired brand not available	
	d. Not available at proper time	
5.	Crop protection chemicals	
	a. High price	
	b. Don't know proper dose and time of application	
	c. Don't know proper method of spraying application	
	d. Lack of knowledge of chemicals	
	e. Distant market	
	f. High transportation cost	
	Any others (specify)	

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12. Cost of cultivation (Rs.) (for one major vegetable and fruit crop)

Name of the Crop:………………………………………….. and land area………………ha

a. Cost of labourers

Sl. No.	Particulars	Land preparation		Sowing/transp		Intercultural operations		Irri.		Organic manure Chemical fertilizer		Crop protection		Harvesting		Any other
		No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	Cost
1.	Human labour															
	a. family labour															
	i. Men															
	ii. Women															
	b. Hired labour															
	i. Men															
	ii. Women															
	c. Permanent															
	i. Men															
	ii. Women															
2.	Bullock															
	i. Owned															
	ii. Hired															
3.	Tractor															
	i. Owned															
	ii. Hired															
4.	Power tiller															
	i. Owned															
	ii. Hired															
	Any other (specify)															

b. Cost of inputs

Sl.No.	Particulars	Quantity (Kgs)	Price -Rs per Kg	Total value Rs.
1.	Seed			
2.	Manure/compost			
3.	Fertilizer			
	a. Urea			
	b. CAN			
	c. SSP			
	d. DAP			
	e. MOP			
4.	Crop protection			
5.	Irrigation			
	Any other inputs (specify)			
	Others			
1	Land revenue			
2	Rental value of land			
3	Rent paid for leased inland			
	Any other (specify)			

13. Marketable and marketed surplus (Kgs or tons)

Sl. No.	Crop	Total production	Home consumption	Kept for seed	others	Marketable surplus	Loses	Marketed surplus

14. Marketing channels

Sl. No.	Method of sale	Market	Distance of Market from farm (Km)	Means of transport	Quantity (Kg)	Price Per Kg	Total price Rs.
1.	Sale of assembling point						
	a. Village traders/ contractor						
	b. Primary wholesaler/Retailer/consumer						
2.	Sale at road head						
	a. Village traders/contractor						
	b. Commission agent/retailer/consumer						
3.	Sale with in state						
	a. Contractor/commission agent						
	b. Retailer/consumer						
4.	Sale at outside state						
	a. contractor/commission agent						
	b. Retailer/consumer						
	Any other (specify)						

15. Marketing costs, sale price and profits of producer (Rs.)

Sl. No.	Particulars	Marketing costs	Sale price	Net profit
	Charge for			
	a. Cleaning/sorting			
	b. Packaging			
	c. Loading/Unloading			
	d. Weighting			
	e. Commission paid			
	f. Taxes/ license fee			
	g. Market fees			
	h. Storage			
	Any other (specify)			

16. Marketing problems

Sl.No.	Problems	Response (Yes/No.)
1.	Grading	
	a. Mechanical grading facilities not available	
	b. Grading standards not specific	
	c. Grading by hand is costly	
	d. Hand grading leads to quality deterioration	
2.	Packing	
	a. Costly packing material	
	b. Lack of quality packing materials	
	c. Packing material not available in time	
3.	Transportation	

	a. High transportation charges	
	b. Lack of better road facilities	
	c. Quick and timely transportation facilities not available	
	d. Lack of link roads	
4.	Weighing	
	a. Weighing not done accurately	
	b. Use of improper scales/weights	
5.	Price	
	a. No support price	
	b. Low price	
6.	Glut in peak marketing season	
7.	Market information	
	a. Lack of timely availability market news	
	b. No reliable source of market information	
8.	Malpractices	
	Any other problems (specify)	

Summary and Conclusion

The course **RHWE-411: Rural Horticultural Work Experience Programme** aims to develop students' understanding of rural life, communication skill and to provide practical training for developing self-confidence and professional competency. Further, the programme emphasizes on **"learning through experience"** and students are expected to understand existing realities of a rural setup through interaction with farmers and undertaking farm operations. The RHWE orientation programme provides action oriented idea to the students to carry out the programme. The village visits and interaction with farmers give an opportunity to students to identify practical possibilities of application of the academic knowledge in the field. The listed programme of activities in the manual helps the students to learn Horticulture as a **"system"** with **"interdisciplinary approach".** Further, exposure visits and training on advanced horticultural technologies is expected to develop professional competency among students.