



EXTENSION EDUCATION INSTITUTE NILOKHERI

Ex. 94

Ex 92  
2

**INSERVICE TRAINING PROGRAMMES  
IN  
EXTENSION METHODS AND COMMUNICATION**

**REPORT OF ACTIVITIES**

— (September 1959 to March 1969)

66

DIRECTORATE OF EXTENSION  
MINISTRY OF FOOD, AGRICULTURE, COMMUNITY DEVELOPMENT AND COOPERATION  
GOVERNMENT OF INDIA  
NEW DELHI

Ex. 94.



**INSERVICE TRAINING PROGRAMMES  
IN  
EXTENSION METHODS AND COMMUNICATION**



## CONTENTS

<i>Sr. No.</i>	<i>Subject</i>	<i>Page</i>
1. PREFACE	.. .. .	(iii)
2. GENERAL	.. .. .	1
3. TYPES OF COURSES CONDUCTED	.. .. .	3
4. TWO MONTHS COURSE FOR PRINCIPALS & INSTRUCTORS	.. .. .	4
5. INTEGRATED COURSE FOR A.E.Os. & A.H.E.Os.	.. .. .	8
6. WORKSHOP ON TEACHING METHODS.	.. .. .	9
7. REFRESHER COURSE FOR TRAINED INSTRUCTORS	.. .. .	10
8. MISCELLANEOUS COURSES	.. .. .	11
9. LESSON PLANS	.. .. .	12
10. AUDIO-VISUAL EDUCATION	.. .. .	17
11. CAMPUS PRACTICALS	.. .. .	19
12. VILLAGE PRACTICALS	.. .. .	20
13. CASE STUDIES	.. .. .	23
14. WORKSHOP ON RURAL YOUTH	.. .. .	24
15. STUDY TOUR	.. .. .	26
16. INSTITUTIONAL SEMINAR	.. .. .	29
17. REFRESHER TRAINING OF SENIOR V.L.Ws.	.. .. .	30
18. VILLAGE ARTISANS TRAINING PROGRAMME	.. .. .	33
19. FOLLOW-UP PROGRAMME	.. .. .	35
20. RESULT DEMONSTRATION OF FARMER'S FIELD	.. .. .	39
21. INSTITUTE PUBLICATIONS	.. .. .	42



## PREFACE

Since 1959 the Extension Education Institute at Nilokheri has been responsible for organizing in service courses for the Principals and Instructors of Extension Training Centres, the faculty of Agricultural and Animal Husbandry Colleges, Agricultural Extension Officers of the National Extension Blocks and others from different fields of Extension Education. One of the aspects of this Institute has been designing and conducting training programmes for Post graduate students in field practicals, ad hoc courses for Colombo plan scholars and foreign participants from Asian countries and Directors and Principals of Family Planning Training Centres. The Principal and the members of the teaching Staff of this Institute have had a long and varied experience in training in service personnel for the past 10 years. This booklet contains the details and methods which will be helpful to those involved in training trainers.

This report contains not only the statistics and the types of courses organized during this period but also a brief description of the methodology involved. I feel that this Institute has been doing useful work in the training of Extension workers. I do hope the information collected in this report can serve as guide lines to the Extension Training Centres in the country.

D.V. REDDY  
*Extension Commissioner*



## INTRODUCTION

The Extension Education was established in 1959 after the experience of a series of short seminars conducted to impress upon the Principals and Instructors of the Extension Training Centres the importance of improving quality of their teaching. As they short seminar could do little more than make the participants aware of the need for further training it was decided to organize ad hoc courses for all categories of Extension personnel to develop skills in teaching and communication methods. With the nucleus teaching staff covering the fields of Extension Education, Educational Psychology, Rural Sociology, Agricultural Economics and Home Science, a variety of programmes of inservices training in Extension Education have been built up at this Institute. The emphasis in the training courses organized here has been on Extension methods and the techniques of communication media. A major portion of the personnel who have attended these courses are in Agricultural Extension and Community Development Programmes. The category of Extension personnel has ranged from the senior village level extension workers to the block extension staff, the instructional staff of Gramsevak/sevika training centres, the faculty of Extension wings of Agricultural and Animal Husbandry colleges and Universities, trainers and directors of family planning centres, directors of inservice training, Colombo plan scholars and a miscellaneous group of Extension workers from different agencies.

This booklet gives the details of all courses conducted since the inception of this Institute in September 1959 upto March 1969. In addition to the types of courses and statistics, a brief description of the methodology has been included. At the end of the booklet will be found a series of syllabi drawn up after consulting experts in the field of the trainers themselves.

One of the distinguishing features of the methods of approach in the training programmes at this Institute has been to involve the participants from the very outset. Decisions are arrived at through co-operative thinking and the programmes, itself, is planned in consultation with the trainers. The draft outline of the syllabus is discussed in detail by the trainees at the beginning of each course which results in a syllabus incorporating the essentials of the course as determined by experts, yet adopted in detail and adopted in toto by those who are participating in the programme. At the end of the course the trainees reassess both the subject matter and the methods of treatment in the light of their own experience. As a result of this method of evaluation and the constant thought being given to the programme by the Institute staff, the work of the Institute has been constantly evolving and improving. Numerous techniques have been examined, methods which have not effective have been dropped, and new methods have been pioneered.

We make no pretense to having developed perfect training programmes, but we have produced some gratifying results, and teaching must be judged by its results. We are grateful to the experts from various Ministries of the Government of India, the Punjab and Haryana State Governments, the USAID, the Ford Foundation, the Rockefeller Foundation, the Indian Agricultural Council of Research, the Food and Agriculture Organization, UNICEF and other research and training institutes that have contributed towards developing a sound doctrine in applying specific principles of teaching. We hope that this report, which is the result of a combined effort of the teaching staff, will provoke deeper thinking and motivate constructive criticism with a view to developing a better understanding of the problems of teaching Extension and better methods of solving them.

HERBERT W. BUTT  
*Principal*



## GENERAL

At the inception of the Community Development Programme, there was an urgent need to train village level workers as quickly as possible. With this end in view, Gramsevak/Sevika Training Centres were established all over India with teaching staff drawn from the various existing departments. The teaching staff was equipped with both subject matter knowledge and field experience but it was considered extremely important to improve the teaching ability of this team. The Extension Education Institute, Nilokheri was set up in September, 1959 after a series of seminars held for the instructional staff of all the Gramsevak/Sevika Training Centres in the country. The main purpose of this Institute has been to help these teachers to develop methods and techniques to improve the quality of their teaching. The objectives of this Institute are :—

1. To prepare high quality professional leaders in the field of extension education to serve as Principals, Instructors, Supervisors and Demonstrators of the Training Centres.
2. To provide a thorough training in the philosophy, procedures and methods of extension work.
3. To demonstrate the most effective teaching procedures and techniques by organising a training programme on teaching methods.
4. To have a continuous programme of research in extension methods.
5. To publish basic materials relevant to Extension Education Personnel.

In the operation of the training programme emphasis is laid on high quality scholastic performance and effective methods of instruction. Special importance is given to demonstration of team work and all round cooperation between the staff and students during the training period.

### Instructional Programme

A tentative broad outline of the syllabus is provided to the trainees during the first three days of the course. This outline is based on the concept that the subject of Extension education is an applied science which draws its content from relevant material such as basic disciplines as psychology, sociology, philosophy, anthropology and economics, all synthesised into a body of subject matter. During the discussions the group of participants is permitted to suggest amendments to the tentative outline in order to meet their requirements.

### Main Disciplines of the Syllabus.

1. Extension Education and Programme Planning in Agricultural Production.
2. Training of Farmers and Rural Youth.
3. Extension Teaching Methods and Communication Process.
4. Rural Sociology.
5. Agricultural economics and farm planning.
6. Home Science.

### Method of Approach

In the operation of the training programme emphasis is laid on effective methods of instruction. A definite order is followed in the actual process of teaching as there has to be a general sequence to deal with the basic problems of adult teachers. This order is often complicated by the interweaving and overlapping of the various disciplines and method of treatment. The syllabus and the daily class programme are given due attention. There is a thorough analysis of the content and meaning of learning, methods and techniques group and individual development, the psychological implications of teaching, and criteria and values.

In addition, careful attention is given to the trainees themselves, their reactions, behaviour and accomplishments. Every assistance is given to them to help them develop desirable skills and attitudes. Naturally, they are evaluated on both natural and acquired qualities.



In order to improve the quality of teaching of the trainees the work of the Institute is carefully planned with the following points in view :

1. Constant awareness of the reactions of the trainees to enable growth of personality.
2. Freedom to participate in the programme—to encourage initiative.
3. Individual attention to develop poise and self-assurance.
4. Provision of realistic situations.
5. Varied programme in order to provide training in the use of group process—sharing common worthwhile experiences—developing leadership.
6. Guidance and counselling.
7. Constant process of analysis and evaluation.

### **Skills**

The syllabus is applied in a way calculated to develop the following skills in the trainees during the training programme :—

1. Ability to teach with poise and confidence on the basis of adequate subject-matter knowledge.
2. Ability to use appropriate group methods in teaching.
3. Ability to use a variety of visual aids and audio-visual equipment.
4. Ability to conduct method and result demonstrations effectively.
5. Ability to survey and collect necessary data.
6. Ability to write case studies.
7. Ability to draw up farm production plans, home management plans and family budget plans.
8. Ability to draw up a village plan and a block plan.
9. Ability to analyse, assess and evaluate.



### 3. TYPES OF COURSES CONDUCTED FROM SEPTEMBER 1959 TO MARCH 1969.

Particulars	Duration	No. of courses conducted	No. of participants.
1. Principals, Chief Instructors, Instructors of G.T.Cs, Home Science Wing and Agricultural Workshop Wings.	2 months	21	490
2. Integrated course for Agricultural and Animal Husbandry Extension Officers.	6 weeks	12	245
3. Seminar on teaching methods for faculty of Agricultural and Animal Husbandry colleges.	4 weeks	2	30
4. Workshop on Teaching Methods & Extension Administration for Principals of G.T.C.S.	3 weeks	1	25
5. Refresher courses for trained Instructors.	2 weeks	5	71
6. Subject matter Agricultural Engineers Course	2 weeks	4	68
7. Refresher courses for Sr. V.L.Ws.	2 month	41	908
8. Village artisans course for Agricultural implements.	1 year	12	163
MISCELLANEOUS COURSES			
9. Seminar for key personnel of I.A.D.P.	2 weeks	1	44
10. Building and implementing problem oriented Extension programme workshop.	2 weeks	2	53
11. Special workshop on research methodology.	2 weeks	1	18
12. Short courses for Colombo Plan scholars.	2-10 days.	4	29
13. Food demonstrators from the Ministry of Food.	2 weeks	1	16
14. Special Agricultural refresher training of engineers.	1 month	3	56
15. Probationary Officers of National Productivity Council.	2 months	1	9
16. Post graduate students training for field practicals.	3 weeks	4	38
17. Seminar for Directors, Principals and Health Educators of the Family Planning Institute.	2 days	6	126
18. Private project holders of Action for Food Production.	2 weeks	1	34



#### 4. TWO MONTHS COURSE FOR PRINCIPALS, CHIEF INSTRUCTORS AND INSTRUCTORS OF GRAMSEVAK/SEVIKA TRAINING CENTRES

##### Treatment of syllabus

The training programme is organised in four distinct stages. First the theoretical framework, secondly, staff presentation, thirdly, the involvement of the participants and fourthly action in village situations. These stages include individual and group assignments in the class room, on the campus and in village situations. Lecture-cum-discussions form 1/3rd of the course time allotting the other 2/3rds for individual and group assignments. The other items of the instructional programme are as follows :

1. Demonstrations —result and method.
2. Campus and village practicals.
3. Institutional seminars.
4. Audio-visual workshop—preparation and presentation of simple visual aids.
5. Film reviews and assignments.
6. Handling of Audio-visual equipment.
7. Preparation of lesson plans—course outlines.
8. Presentation and analysis of lesson plans, method demonstrations and group methods.
9. Study tours.
10. Field trips.
11. Workshops on youth activities, high yielding varieties and farmers' training.
12. Case studies.
13. Research projects.
14. Farm production plans.
15. Village production plans.
16. Survey and collection of data.
17. Programme planning.
18. Campaigns.
19. Farmers' day.

##### Courses organised from September 1959 to March, 1969.

Twenty-one courses have been organized for Principals, Chief Instructors and Instructors of Gram-Sevak/Sevika Training Centres. The statewise details of the number of participants who have attended these 21 courses are as follows :—

<i>State</i>	<i>No. of participants</i>
1. Andhra Pradesh	46
2. Assam	21
3. Bihar	21
4. Gujarat	9
5. Himachal Pradesh	8
6. Jammu & Kashmir	9
7. Kerala	14
8. Madhya Pradesh	37
9. Madras	21
10. Maharashtra	21
11. Mysore	15
12. Orissa	15
13. Punjab	34
14. Rajasthan	40
15. Uttar Pradesh	159
16. West Bengal	9
17. Tripura	1
18. NEFA	2
19. Foreign	4
20. Other Agencies	4
<b>TOTAL</b>	<b>490</b>



The following table shows the different categories of personnel at the GTCs who have attended the above courses :—

1. Principals & Vice Principals	28
2. Chief Instructors, Home Sc. Wings.	13
3. Chief Instructors, Agricultural Workshop Wings.	12
4. Instructors in Animal Husbandry & Veterinary Science.	24
5. Extension Training Officers.	72
6. Instructors in Agriculture.	161
7. Instructors in Cooperation & Panchayat	42
8. Instructors in Social Education.	29
9. Instructors in Horticulture.	10
10. Instructors in Cottage Industries.	17
11. Lecturers in Agricultural colleges	11
12. Instructors in Home Science.	39
13. Instructors in Public Health.	12
14. Instructors Overseer.	6
15. Instructors in Blacksmithy, Agricultural Engineering and Rural Engineering	8
16. Foreign	4
17. Others	2
<b>TOTAL :</b>	<b>490</b>

#### No. of courses organized each year

The following table shows the number of courses that were organized each year :—

<i>Year</i>	<i>No. of courses</i>
1959-60	2
1960-61	3
1961-62	3
1962-63	2
1963-64	1
1964-65	4
1966-67	2
1967-68	2
1968-69	2

#### Participants from each GTC.

The table below will show the number of participants from each GTC according to each State.

<i>Name of GTC</i>	<i>No.</i>	<i>Name of GTC</i>	<i>No.</i>
ANDHRA PRADESH		Anakapalli	3
Rajendranagar	9	ASSAM	
Nandyal	7	Upper Shillong	7
Smalkot	7	Arunachal	4
Bapatla	8	Jorhat	5
Gopannapalaem	7	Khanapara	5
Kalahasti	5		



<i>Name of GTC</i>	<i>No.</i>	<i>Name of GTC</i>	<i>No.</i>
BIHAR		Parbhani	2
Ranchi	3	Tharsa	1
Monghyr	5	Manjri	4
Muzaffarpur	9	Jalna	3
Patna	3	Kolhapur	2
Animal Husbandry Deptt.	1	Buldana	1
GUJARAT		Sindwahi	2
Junagarh	4	Amraoti	2
Morvi	1	College of Agri. Dhulia	1
Surat	1	MYSORE	
Baroda	1	Dharwar	6
Institute of Agri. Anand.	2	Gangavathy	2
HIMACHAL PARDESH		Kudige	2
Basic Agril. School. Cahhabra	1	Bagalkot	2
Mashobra	7	Mandya	3
JAMMU & KASHMIR		ORISSA	
Malangpura	9	Balasore	2
KERALA		Bhubaneswar	5
Peroorkhada	6	Rangailunda	3
Thaliparaba	3	Bolangir	3
Kottarakara	4	Mahisapat	2
Ollukkara	1	PUNJAB	
MADHYA PRADESH		Nabha	16
Chandkhuri	8	Batala	16
Mowgong	7	Sirsa	2
Antri	6	RAJASTHAN	
Satrati	4	Ajmer	2
Powarkheda	3	Kotah	6
Betul	3	Swai Madhopur	7
Obaidullaganj	6	Udaipur	4
MADRAS		Deoli	6
Pattukottai	5	Mandore	6
Aduthurai	3	Chhatarpur	2
S.V. Nagaram	2	Garhi	5
Kovilpatti	5	Tilonia	2
T. Kalupatty	1	UTTAR PRADESH	
Bhavanisagar	4	Bichpuri	6
Krishanagiri	1	Kalakankar	8
MAHARASHTRA		Faizabad	6
Morvi	1	Lakhana	7
Jalgaon	2	Bakshi ka Talab	9
		Bareut	8
		Gazipur	7



<i>Name of GTC</i>	<i>No.</i>	<i>Name of GTC</i>	<i>No.</i>
UTTAR PRADESH (Contd.)		Fatehpur	1
Gorakhpur	7	Azamgarh	1
Chirgaon	9	Asafpur	6
Mainpuri	7	Govt. Agri. College. Kanpur	1
Hawal bagh	4	Agri. School Chirgaon	1
Dohai	1	Agri. School, Bulandshehr	2
Bulandshehr	5	Agri. School Dhanlana	1
Fatehgarh	1	Jat College, Muzaffarnagar	1
Rajghat	2	H.P. Singh Agri. Institute,	
Tamkoshi	1	Biswar	1
Jhansi	1		
Pauri Garhwal	6	WEST BENGAL	
Dohrighat	8	Fulia (No. I)	2
Rudrapur	10	Fulia (No. II)	2
Gurkul Kangri	8	Burdwan	2
Pratapgarh	7	Chinsura	1
Rampur Maniharan	8	Malda	1
Lakhauti	3	State Agri. School,	
Bakewar	5	Cooch Bihar	1

#### Usual break up of training period.

Period of training	60 days
Sundays and holidays	12 „
Orientation & Evaluation	2 „
Village practicals	6 „
Study tours	5 „
Workshop on audio-visual aids	3 „
Seminar on rural youth	3 „
Actual working days available for campus works, talks, practicals and demonstrations.	29 „

#### Break up of periods on the campus

Village practicals—preparation	3 periods.
Study tour plans	2 „
Finalization of the syllabus	4 „
Lesson plans presentations	36 „
Method demonstrations	24 „
Institutional seminar	15 „
Talks & discussions	60 „



## 5. INTEGRATED COURSE FOR AGRICULTURAL AND ANIMAL HUSBANDRY EXTENSION OFFICERS.

For the first time in 1963 a course for agricultural extension officers was conducted at this institute, with the main objective of helping them to develop proficiency in the use of extension methods. These field officers who have three years of experience were brought back to the Institute to get a better understanding of an integrated approach of subject matter with extension. Attention was given to the consideration of the problems faced by these field officers in the light of their job and subject matter. Through a variety of exposures to practicals and demonstrations and village work the participants were provided a learning situation which would help them to examine their method of approach in field situations and go back with a clear concept of the functions they have to perform as an effective extension worker. During the period from January 1963 to March 1969 twelve courses have been organised at this Institute. In addition to this courses were also conducted for animal husbandry extension officers with the same objective of helping the participants to get a better concept of extension methods as related to their own subject matter. Assistance was taken from the National Dairy Research Institute for the conduct of these courses. The subject matter areas selected were breed development of local cattle, conservation of fodders and development of poultry and fisheries. In campus practicals fodder cultivation was given more emphasis. During the village practicals group projects such as cattle census, treatment of sick animals, vaccination, cattle shows, cultivation of hybrid napier and construction of cheap poultry houses and cattle sheds were included. Among the individual projects for method demonstrations, clean milk production, balanced feeding and castration of scrub bulls were organised. Projects of present livestock position, feeds and fodder, marketing and problems regarding livestock development were included.

Later the six weeks course for extension officers was limited only to agriculture. The syllabus was revised and 75% weightage was given to subject matter and 25% to extension methods.

In subject matter the participants were asked to point out the specific areas in which they needed more information. In addition to this the result of the latest researches were also taken up. Emphasis was given to the high yielding varieties programme and farmers' training.

After finding out the specific requirements of these officers such as plant protection measures, propagation of fruit trees, handling of improved implements were stressed upon. More attention was given to the practical aspect of the functions of these extension officers. During the village practicals they were involved in vegetable plots result and method demonstrations, campaigns for fertiliser and deratting. Workshops on farm management and visual aids were included in the course. While giving emphasis on subject matter and practicals the participants were indirectly involved in developing skills in communication and preparation of display material. In the twelve courses held the following is the statewise list of the participants.

Assam	..	10
Bihar	..	3
Delhi	..	3
Himachal Pradesh	..	2
Jammu & Kashmir	..	14
Madhya Pradesh	..	9
Punjab	..	26
Rajasthan	..	45
Uttar Pradesh	..	112
West Bengal	..	9
Foreign scholars	..	6
Tripura	..	1
Nagaland	..	1
Haryana	..	4
TOTAL	..	245



cultural and manurial practices in increasing crop production. This will, of course, not touch the bigger and more vital problem of dissemination of useful agricultural information to the farmers themselves. I have been very conscious of this gap in our organisation both here and at the State end. I have just returned from a conference at Lucknow, where arrangements were discussed to tackle this in a big way and I am hopeful of progress soon."

As is the case with all new ideas, the concept that the Japanese Method of Paddy Cultivation will prove beneficial to the country had also its critics. And it was in the midst of the great debate in the country around the topic of suitability or otherwise of the new method that there came, suddenly, a gentle warning demanding concerted action from Pandit Jawaharlal Nehru, Prime Minister of India. The Prime Minister, in a note sent to Sri Rafi Ahmed Kidwai, Union Minister of Food and Agriculture, on December 22, 1952, remarked:

"Your attention must have been drawn to the improved methods of rice cultivation which have been adopted in many parts of Bombay State. These are after the Japanese pattern. It seems to me that this is a revolutionary approach which will yield very great results. It surprises me that, in spite of the success of this experiment in Bombay State, enough attention has not been given to it. I have referred to this matter in my fortnightly letter today. I would particularly draw your attention to it.

"I gather that some kind of a delegation is being sent by your Ministry to America to study agricultural methods. It seems to me that it would be far more useful for this delegation to go to Japan and learn about this food cultivation than to visit America or some country, where conditions are very different from those in India.

"I am sending you a note on rice cultivation which was given to me a few days ago."

---



## 7. REFRESHER COURSE FOR TRAINED INSTRUCTORS

It was decided in the all India Extension Conference to organise refresher courses for two weeks for Principals and Instructors of the Gramsevak/Sevika training centres who have already attended the two months course on extension methods, techniques and communication media. The first course was conducted in October, 1967. The main object of this course was to bring back the instructional staff who had the initial training of two months in order to sharpen their skills in extension methods and improve their quality of teaching. Advantage was taken at this time to also get the views of the experienced members of the instructional staff of the GTCs regarding the method of approach adopted in training the Gramsevaks. The tentative syllabus contained a few selected topics dealing with techniques of teaching and learning. Emphasis was given on teaching methods, communication, guidance and counselling, farmer's training and the high yielding varieties programme.

One of the main features of this course was the case study approach. To give an opportunity to the instructors to get better acquainted with this method the staff of the Institute prepared case studies themselves of the participants of the course while the participants were given the assignment of writing case studies on the senior V.L.Ws. attending a refresher course at the same time. This approach helped the teaching staff of this Institute to gain deep insight into the attitudes, problems and the method of working of the instructor participants. By making the instructor participant himself the object of learning, the case study project became extremely effective in both directions—in helping the instructor to look upon the various facets of training from an objective point of view and on the other hand helping the members of the teaching staff of the Institute to get acquainted with the areas of deficiency and the attitudes of the trainers at the GTCs.

In addition to the above assignment the group was sub-divided to make detailed studies of the various sections of the training programmes conducted at the GTCs.

Book reviews, synoptic notes, lesson plan presentations, analysis and review formed the main core of the refresher course. Five such courses have been conducted up till March 1969. Seventy-one participants attended these courses.

---



## 8. MISCELLANEOUS COURSES

### Seminar for Key Personnel of Intensive Agricultural District Programme

An eleven day conference was organised from the 5th to the 15th of December, 1960, for the key personnel engaged in the Intensive Agricultural District Programme in the seven selected districts in the States of Andhra Pradesh, Bihar, Madhya Pradesh, Madras, Punjab, Rajasthan and Uttar Pradesh. Shri S.K. Patil, Union Minister of Food and Agriculture, inaugurated this conference. The main object of this conference was to orient the key personnel of the selected districts concerning objectives of the Package Plan. Specialists of the various subjects were invited to provide necessary information and organise discussions among the participants.

Forty-four officers consisting of Collectors, Project Officers, District Agricultural Officers, Registrars of Cooperative Societies, Directors of Agriculture and subject-matter Specialists attended this conference. The State-wise distribution of the personnel was as follows:

Andhra Pradesh	..	6
Bihar	..	10
Madhya Pradesh	..	6
Madras	..	9
Punjab	..	6
Rajasthan	..	6
Uttar Pradesh	..	1
TOTAL	..	44

Specialists were invited from the several ministries and agencies.

The staff of the Institute also participated in the teaching programme. The village visits and the farm production plans were arranged for by the members of the staff of this Institute.

A conference report was compiled at the end of the conference.

### Building and Implementing problem oriented extension programme workshop

This workshop was conducted from the 3rd to the 14th February 1964 for Professors and Associate Professors of Agricultural and Animal Husbandry colleges and universities with the main object to try out a new approach to extension teaching. In this approach the group of 16 participants from U.P., Gujarat, A.P., Bihar and Punjab was first taken to four selected villages to study a specific problem. From this problem other factors connected with planning a programme and extension methods were brought together for discussion and group work. This problem oriented approach was tried out for the first time to tie in the various steps connected with analysing and studying specific problems in rural areas. The subject matter connected with these problems was indirectly brought into enlighten the group with the technical subject matter content in various fields that is needed for each problem. From the study of soils the group was able to select specific crops for which a detailed plan of action was prepared for each village. In this way the senior college staff was able to consider ways and means of improving training techniques in extension by emphasising the practical side of tackling problems from all angles.

Another workshop of the same kind was held from the 15th to the 20th April 1964 for Principals and Officers incharge of Refresher Training Units. The 29 participants that attended this course were from 12 States viz., A.P., J & K, Gujarat, H.P., Kerala, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan and U.P. In addition to the problem oriented approach the participants were given an opportunity to examine the method of working in the Refresher Training Programme for Gramsewaks. The views of the participants were obtained regarding the utility of such courses.

### Special Workshop on Research Methodology

Opportunities to improve the technical knowledge of the teaching staff of this Institute have been provided whenever convenient and possible. Specific aspects of Extension Education have been selected and specialists invited for a short workshop for the members of the teaching staff of this Institute and the other training centres situated at Nilokheri. On some occasions the teaching staff has moved as a team to other research centres and specialised Institutes to meet with the faculty and have discussions on topics common to both the Institutes.



It was decided in the staff meeting of all the three Extension Education Institutes that a special workshop of research methodology for the benefit of the teaching staff would be helpful. Accordingly, a two weeks workshop was organised at Nilokheri in which the staff members of the other Extension Education Institutes situated at Anand and Hyderabad participated. Specialists and Professors from specialised agencies and Universities were invited to take up topics of research methodology. Along with these presentations, participants discussed ways and means to conduct research in their respective Institutes.

#### **Short Courses for Colombo Plan Scholars**

A short training programme in extension philosophy and methods was arranged for a group of eleven Extension Officers from Iran from 2nd April 1960 to 9th April, 1960. Special classes were held for this group. As only the leader of the group understood English the discussions and the talks had to be translated by him to the group.

In the third course an Extension Officer from North Borneo attended the full course along with the Principal and Instructor-trainees. As he knew English he was able to take part in all the activities with the other trainees.

Colombo plan scholars have been attending some of the regular courses designed for either extension officers or the instructional staff of the GTCs. In some cases, they have attended the entire course from the beginning to the end and in some cases, they have participated in the major portion of the course. We have had requests for conducting courses for Colombo plan scholars on specific topics. Some of the visits of these scholars have been only for a day or sometimes for a period of 10 days.

#### **Short Course for Food Demonstrators.**

A short course on Extension techniques for food demonstrators was organised for a period of 2 weeks from 18th to 31st May, 1966 to develop skills in dealing with various types of groups to improve their dietary habits. Sixteen participants from 4 regions of the Department of Food attended this course. These participants had already been assigned to other Institutions for their subject matter training. They were sent here to learn the practical application of extension methods and techniques of communication. While preparing the syllabus, emphasis was given to the topic of balanced diet. During the short course, emphasis was given to conducting method demonstrations and the preparation of simple visual aids. The group was taken to the villages where they had the opportunity of preparing simple diets for villagers and convincing them regarding their nutritive values.

#### **Refresher Courses for Agricultural Engineers and Instructors.**

Four one month courses have been organised at this Institute for Vice Principals (Engineering), Chief Instructors and Agricultural Engineers of the Agricultural Workshop Wings in the country. The main object of these courses has been to impart the latest developments in the subject of Agricultural Engineering to the participants and to focus their attention to the proper use of extension methods related to their own subject. In these four courses held during the gap periods 68 participants from nearly all the states attended. One fourth of the time during this course was devoted to extension methods. Specialists in Agricultural Engineering were invited to give this group the practical knowledge required in improved implements.

#### **Probationary Officers of National Productivity Council**

A two month course for probationary officers of the National Productivity Council was started on 17-8-67. The nine officers deputed by this Council had already received subject-matter training in their own respective fields. They were sent to this Institute for a course of extension methods and extension programme planning to increase agricultural production.

For the most part of their stay these officers were combined with the agricultural extension officers in assignments such as case studies, evaluation, demonstrations and village work. In addition to these the N.P.C. officers were given separate assignments of book reviews and study projects. The book reviews helped the officers to get acquainted with the latest thinking of the experts in the field of extension. The study projects were in connection with the programme of the block activities. These projects helped these officers to interview the block personnel, progressive farmers and study and evaluate specific projects taken up by the block.

#### **Post Graduate Students.**

Students of the M.Sc. final class with a major in Rural Extension and Home Economics from the Lady Irwin College, New Delhi have been attending a short course on extension methods and field practi-



calls for a period of three weeks from 1962. The group usually consists of ten Post-graduate students who have already attended courses in Extension Education. The main objective in visiting this Institute has been to get an opportunity for the practical application of the principles of extension in a real situation.

During their stay a short period is allotted for lecture-cum-discussions to orient them with the village conditions. They are then assigned to projects which need field survey to collect data in order to study the dietary habits of selected samples of families. In this way they are able to fulfil their requirements for field work in extension.

#### **Seminars on Training in Extension.**

For the past four years a short seminar for a day or two is conducted in collaboration with the Central Family Planning Institute, New Delhi. The National Institute of Health Administrators and Education and the Central Family Planning Institute have been sending their health Educators, Principals and Directors of Family Planning Institutions to study the methods and techniques employed at this Institute for training extension personnel. During the past four years a group of nearly 20 participants representing the major portion of the country has been attending this short seminar every year.

Although the visit of these participants has been very short, they have helped the teaching staff to get a better understanding of training and techniques used by Family Planning Directors.

#### **Workshop for private project holders of action for food production organisation.**

A two week workshop was organised from 25-3-68 to 6-4-68 in collaboration with the Action for Food Production Organisation. The main object of this workshop was to involve the group of 34 private project holders in the steps of programme planning. A tentative syllabus in three parts was designed for this group. In the first part the theoretical frame work was presented covering the areas of extension education programme planning, farm economics, leadership patterns, evaluation and communication. In the second part the members of the group were brought in close touch with successful project holders in areas of intensive agricultural district programme, programmes of dairy, poultry, vegetables and food production, improved implements and high yielding varieties. In the third part the participants were given the assignment of preparing plans for a specific area for one of the selected villages of the Institute. Field visits, contacts with progressive farmers, survey and collection of data formed the core of these village plans.

The group varied in age, subject matter, experience and interests. It includes agriculturists, agricultural engineers, social scientists, tractor operators and well sinking personnel.

#### **Workshop on Teaching Method and Extension Administration Principals**

For the first time, a special workshop on teaching methods was planned for the Principals of the Gramsevak Training Centres from 11th to 30th November, 1968. One of the main reasons for the Principals not attending the regular two month courses on teaching techniques and communication media is that they cannot be away from their training centres for so long a period. It was also felt that the Principals required a different slant in training as compared to the instructors. During the Principal's Conference organised by the U.P. State at Hardwar a suggestion was made that a Workshop of a short duration may be organised specifically designed for the Principals which could help them to sharpen their skills in teaching methods as well as to study the situations connected with building up the instructors in their training centres.

The Principals were requested to give their views regarding the method of approach and the treatment of the syllabus for the workshop. In all, 15 Principals responded to the above circular from U.P., Madras, Gujarat, Mysore, Rajasthan and Madhya Pradesh. The views presented differed widely. In general, most of them have recommended that lectures may be reduced to the minimum. Emphasis on evaluation, follow-up of the VLWs, personnel management, rural youth programmes, lesson plans and preparation of the audio visual materials was evident from the responses. The tentative syllabus was again modified in the light of the suggestions received from some of the Principals. This syllabus was again discussed on the arrival of the participants and further changes were made giving emphasis on personnel management, evaluation, extension methods and case studies.

#### **Treatment of the Syllabus**

After giving an opportunity to the Principals to discuss the syllabus, a few areas have been selected namely, educational psychology, extension teaching methods, programme planning, evaluation, extension administration, farmers' training and case studies. The method of approach of the workshop was not just



to disseminate information but to help the experienced Principals to sharpen their skills in teaching. This was done by the indirect method of including these Principals in the list of the lesson plan presentations and method demonstration presentation.

The topics connected with the day-to-day work of the Gramsevak Training Centres and the functions of the Principal as a leader of the team were discussed through work group approach. The class was divided into five groups.

The topics allotted to each group were as follows :

- Group No. I.* Evaluation of class room teaching and campus practicals.
- Group No. II.* Follow up and study of the work of V.L.W.s in the field and their bearing on the Extension Training Process.
- Group No. III.* Image and role of a practical and effective principal of a GTC as a supervisor, leader, disciplinarian, a guide and a counsellor.
- Group No. IV* Job analysis of instructors in a GTC motivating them to improve the quality of teaching.
- Group No. V.* Problems of training at the GTCs and suggestions for improvement.

A whole day was devoted to the Communication Workshop in which the participants were given Demonstration of the preparation and use of simple visuals without the help of an artist. In this course, the following is the statewise list of the participants :

Assam	3
Rajasthan	4
Tripura	1
U.P.	17



## 9. LESSON PLANS

One of the most important items in the training programme for the instructional staff is the preparation and presentation of the lesson plan. The objective is to provide them with a sound understanding and skill in various aspects of lesson plans in the class room. In order to achieve this objective, the following procedure is followed :

Periods for lecture-cum-discussion on the theory and principles of teaching and learning; effective techniques of conducting of a class; effective techniques of oral communication; procedures and problems of communication are provided for the theoretical frame work.

Atleast three or four periods are devoted for the preparation of the evaluation proforma with the help of staff and participants. This proforma is used by the participants to evaluate each presentation. The entire class is divided into 4 or 5 convenient groups and one staff member is attached with each group as a consultant. Each participant is required to prepare atleast 5 lesson plans relating to his/her subject-matter area. The lesson plans are examined, and edited by the consultants and revised by the participants accordingly. Each participant prepares visual aids connected with his lesson plans during the visual aid workshop. Each participant is required to present two lesson plans ; one before the group of instructors and the second before the group of senior village level workers undergoing refresher training at this Institute. After each presentation a staff member leads the discussion for the analysis with the help of the participants. Some of the selected lesson plans are included in the summary records of such courses. These lesson plans are usually included in each booklet in order to provide a suggestive guide to all the instructors of the same subject in the 100 G.T.Cs. where these are sent at the end of each course. The selected plans can be improved upon and amended according to the requirements and conditions of each G.T.C.

In addition to the regular summary records which contain lesson plans, four issues have been entirely devoted to the preparation of lesson plans. A list of the lesson plans included in these four booklets according to the various subject matter fields is given below :—

### Agriculture :

(i) Crop husbandry and farm management.	86
(ii) Horticulture.	42
(iii) Soils and manures.	14
(iv) Agricultural implements and water management.	30
(v) Agricultural Engineering.	10
(vi) Plant protection.	25
(vii) Agricultural Extension.	4
(viii) Cooperative Farming.	4

Home Science	20	Community Development	3
Cooperation	23	Rural industries	9
Panchayat	23	Animal Husbandry	
Public Health	3	General	10
		Breeding	7
		Calf management	4
		Live stock management	7

One of the main factors in this exercise was to bring about a common approach to the evaluation of a lesson plan. By discussing the essential elements of a good presentation the groups reach a common decision regarding the break-up of the elements of a good presentation. Considerable time is spent in thrashing out the pros and cons of each factor. There are divergent views on the weightage to be given on personal qualities of the teacher, the emphasis on subject matter and the method of presentation of the lesson plan. There are differences of opinion on the emphasis to be given on subject matter and the method of presentation. The view points on the items to be included under each head are also different.



In this process the participants themselves are able to examine each part of a good presentation. They are able to come to a clear understanding of what is essential for a teacher to make his presentation effective. Through examples and illustrations they are able to decide whether a gesture is positive or whether a mannerism is distracting. By giving definite weightage to each item of the presentation the group is able to select priorities in effective teaching.

It is always made very clear to the group in the very beginning that this process may be undertaken only by mature and experienced teachers. The process of analysis has to be entirely objective. The views expressed in the analysis are not to be considered as criticism but have to be taken up in the light of objective considerations and reactions. While analysing each presentation each member of the group would place himself in the same situation and focus his attention on the basic elements of teaching.

STATEMENT OF LESSON PLANS PREPARED AND PUBLISHED (1959-March, 69)

Course No.	Total No. of participants	Total No. of L.P.s. Prepared	Lesson plans published subject-wise.									Total No. of L.P.s published
			Agri.	Ani. Hus.	Agri. Engg.	Horticulture	Cott. Inds.	Publ. Health	Panch. Coop	Social Education & Extension	Home Science	
1	2	3	4	5	6	7	8	9	10	11	12	13
19 courses	484	2384	268	41	76	69	18	32	30	71	35	700
Ref. Course I	9	27	—	—	—	—	—	—	—	—	—	—
Ref. Course II	13	39	3	—	—	—	—	—	—	—	—	—
Ref. Course III	12	36	3	—	—	—	—	—	—	—	—	3
Ref. Course IV	25	50	—	—	—	—	—	—	—	—	—	—
Ref. Course V	12	36	—	—	—	—	—	—	—	—	5	5
Prof. Course I	18	36	2	—	—	2	—	1	1	12	—	—
Prof. Course II	22	44	—	5	—	—	—	—	—	17	—	18
TOTAL	595	2652	273	46	76	71	18	32	31	170	40	748



## 10. AUDIO-VISUAL EDUCATION

One of the major features of the training programme is audio-visual education. In the treatment of the syllabus attempts are made in a variety of ways directly and indirectly to focus the attention of the participants on audio-visual education and the communication process.

In the syllabus the third discipline consists of extension teaching methods and the communication process. In addition to a detailed break up it also contains the list of practicals which is conducted to provide the necessary skills in the field or audio-visual education. The main objective of including this in the training programme is to help the participants to understand the nature and role of visuals and audio visual materials in extension work, as well as to develop the necessary skills in the participants in their actual use.

In the theoretical framework a series of lecture-cum-discussions are arranged through which the participants are given a comprehensive picture of the various extension teaching methods and the use of audio-visual materials in the teaching process. A great deal of emphasis is given to educational psychological specially in relation to learning situations. The communication process and various elements involved in it are discussed thoroughly before the programmes in audio-visual education are initiated.

### Audio-visual aid workshop

In order to develop specific skills in the preparation and use of visuals a workshop for three days, is included in each course. The main purpose of this workshop is to provide an opportunity to the participants to get acquainted with their own creative talent and intelligence in the field of preparing visuals. The specific objectives of this workshop are as follows :

1. To study the extent the visuals can be produced without the help of an artist by extension workers for their jobs.
2. To examine the factors to be kept in view in the preparation of visuals for field situations.
3. To create a consciousness about the potentialities the extension worker has for displaying his ideas through visuals.
4. To emphasize the use of local available material in the preparation of visuals.

In each course the participants are exposed to the specific aids that are effective in class-room teaching and village work. Each aid is taken up separately by each member of the staff in a team approach. The choice to select the type of visual which they would like to prepare in the workshop is left to them. An artist is invited to demonstrate the preparation of various types of visuals connected with class room teaching and village work. In these demonstrations details of caption, colouring scheme, lay out, lettering etc. are given emphasis. The artist actually convinces the group how to make visuals without the help of a qualified artist.

A major portion of the workshop is devoted to the practical side of visual aids. A common theme is selected by the sub-groups and the choice is left to the groups to select any particular aid that they are interested in, such as flash cards, posters, flannel-graphs, flip charts, pie charts, bar charts, paper slides, wall newspapers, pictorial charts etc. In addition to this group assignment the participants prepare visuals that would fit in with their lesson plan presentations. In this way individual assignments and group assignments are given to each sub-group.

During the workshop all facilities and equipment are provided to the sub-groups. An artist and a consultant for each of the sub-groups helped it to bring out both its creative idea and also get the proper guidance in the technical approach of the visual.

The most important part of this workshop is the analysis. At the end of the workshop each group demonstrates its visuals it has prepared to the whole group. They also present their views on the selection of the theme, the idea and the preparation of the visuals. After the presentation the work is analysed by the entire group. This discussion provides an excellent learning situation to examine the pros and cons of each visual.

During the year 1966-67 the following topics were taken by the different groups for preparing a set of flash cards as group assignment in the workshops :

1. Rat campaign.
2. Planning a kitchen garden.



3. Cultivation of Sonora '64, C 306 (Wheat), Hybrid bajra, Hybrid jowar, I.R.8 paddy.
4. Cooperative poultry farming.
5. Rickets and its cure.
6. Cultivation of tomato, bhindi, brinjal and papaya.
7. Deep litter system of poultry keeping.
8. Common diseases in poultry.
9. Pest control in Maize.
10. Sanitary improvements.
11. Three tier system of Panchayati Raj.
12. Service cooperative.
13. Means of communication process.

In addition each participant prepares visuals to illustrate his two lesson plan presentations and one method demonstration. The participants are allowed to take these visuals with them to their respective centres for their use. In general the participants have had a feeling of satisfaction towards this training activity. Participants were able to visualize their 600 lesson plans by March 1969. Visuals prepared included charts, flannel graphs and flash cards mostly :—

#### **Training in the handling of projectors.**

The Institute has the following equipment for training purposes in the Audio-visual section.

1. Public address system.
2. Motion picture 16mm projectors.
3. Opaque projectors.
4. Film strip-cum-slide projectors.
5. Over head projector.
6. Film strip-cum-slide projector (which can work on kerosene)

Ample opportunity is given to each participant who is interested in the handling of the above equipment. After demonstration each participant is given 6-7 opportunities during off hours to practise and develop the skills of using these mechanical equipment.

#### **Film appreciation.**

The film show is conducted on every Monday on the campus. Sometimes more than one film show is conducted during a week, depending upon the interest of the participants as well as the availability of the films. During the year 1966-67, 49 films shows were conducted at the campus. The films were obtained from the ministries, agencies and foreign embassies. Till March 1969, film shows conducted at the campus numbered two hundred and ninety seven.

The participants are divided into small groups and they are encouraged to write short reviews of the films shown at the campus. This helps them to develop skill for film appreciation.

#### **Film shows in the selected villages of the Institute.**

In every course the participants are placed in the adopted villages for about a week. Film show forms an important activity during these village practicals. A show for one and a half hour is generally organised in each village during these placements. Ninety films shows were conducted in the villages by March 69. The main objectives of these film shows are as follows :

1. To provide a forum for the people to come to listen to new ideas on Agricultural Production.
2. To help them to understand some of the improved agricultural practices.
3. To give them an opportunity to compare conditions of their village with the condition of other parts of the country.
4. To provide them recreation and entertainment.

The films are pre-viewed by the participants at the Institute before making a selection for the village. The participants are given proformas to find out the reactions of villagers to these films. These are compiled by the group and presented to the entire class at the end of their village stay. This provides the Institute some guidelines for the selection of the films for these villages.



## 11. CAMPUS PRACTICALS

### Method Demonstration :

In all courses demonstrations have been given an important role in Extension teaching. These have been considered as the best tools for the extension workers in convincing farmers and improving their learning. It has been stressed on all categories of trainees that the purpose of a method demonstration is to present an improved practice in an interesting and convincing way so that the farmers will appreciate its desirability and its practical application to their situation. Demonstration properly conducted produce a high proportion of acceptance at a relatively low teaching cost. In order to develop skills in Extension methods each participants is involved in this individual assignment. After being oriented to the merits and demerits of this tool, each participant is required to prepare and plan out a demonstration. These plans are prepared under the guidance of a consultant attached to each group. Through observation and analysis the participant develops confidence and poise in using extension methods effectively.

To give practice in this important technique the theoretical frame work is presented and discussed by a staff member after which a plan is given. Preparation of a method demonstration plan is necessary to collect all the material in advance to be clear about the different steps involved in the demonstration and also about the points. This makes the actual demonstration more effective and systematic.

To provide an example an actual demonstration is given by a staff member to give an idea to the participants of how the steps could be applied in a practical situation. To standardise the analysis a proforma for assessment is evolved with the help of the participants. All the important steps that go to make a demonstration effective are incorporated in this proforma and necessary weightage given.

The group is then divided into sub groups and attached to a staff member, who acts as consultant in selection and execution of the plans. Each participant is given a chance to practise this on the campus. According to the topic of the demonstration it is either done in the class room or in the field. The demonstration is analysed by the group with the help of the staff members. Thus an individual gets exposed to as many demonstrations as there are trainees in the group. The trainees in most cases use black board, actual specimens and other visual aids which they prepare in the visual aid workshop.

After gaining proficiency on the campus these demonstrations are conducted in the villages according to the need of the villagers and the seasonal requirements. The topic selected by the participants were simple but very essential for production programmes. Amongst the method demonstrations conducted plant protection attracted maximum attention. In home science, topics connected with the preparation of nutritive diets have been selected. In Extension and social education the topics are generally on handling of audio-visual aids. Some of the subjects such as Panchayats and Cooperation don't lend themselves to method demonstrations very well. In these cases role playing, socio drama or mock elections are organised in the shape of method demonstrations as a means of instruction. The steps involved are systematically brought out to create a learning situation which is the main purpose of this extension technique.

The participants of the various courses have stressed the importance of this technique. In the follow up programme they have continuously mentioned the need to develop more confidence in using demonstration as an Extension method.

---



## 12. VILLAGE PRACTICALS

Village practicals form an important phase of the training programme for all courses conducted at this Institute. The main objective of providing time for this activity is to give them an opportunity to apply and practice the principles learnt in the classroom. In the village practicals relevant portions of the syllabus like programme planning, farm production plans, case studies, and method demonstrations are given as assignments. The village practicals help to give the trainees a practising ground to try out various techniques that they have learnt in the class room.

### Objectives of the village practicals.

1. To get an opportunity to use Extension methods.
2. To study the local situations and its problems.
3. To meet and discuss with the villagers matters connected with their interests.
4. To select the most appropriate extension methods according to seasonal requirements.
5. To get the feeling of how villagers think and to help motivate group thinking.
6. To select proper local leaders and teach the villagers new and effective methods by which they could improve their yield and subsequently their income.
7. To participate in the activities of the Block programme which falls in line with our requirements.
8. To help the Block in disseminating information.
9. To evaluate the effect of the Community Development Programme in the Villages.
10. To survey, prepare family and village plans.
11. To help the villagers to plan their agricultural activities in a more systematic way by which they could increase their yields.

### Criteria for selection

Certain criteria are fixed for selection of villages. It is essential that the selected villages should have a cooperative society, a school, and a panchayat. The village should not be too big nor too small. On an average each selected village should have about 100 families. It is also necessary for the village level worker to be available at the village. Villages which are advanced and visited by distinguished visitors are avoided. As far as possible villages selected should be within the radius of 10 miles from the Institute.

After selection of the villages each member is allotted one village where the staff members work with their projects. The villagers are selected in consultation with the Block staff. It is also ensured that the selected village will have accommodation facilities for the trainees and safe drinking water facilities.

### Villages used for village practicals.

A set of villages are taken and visits, staff projects are carried on in the villages for about 3 years. After 3 years another set of villages is selected.

#### *First set*

Saidpur  
Khaja Ahmed Pur  
Anjanthali  
Pujam

#### *Second set*

Shamgarh  
Dadupur  
Jhanjari

#### *Third set*

Jamba  
Jirabadi  
Uchana  
Bhaini khurd  
Baledi

Apart from these villages, a few more are included for village practicals to suit the requirements of the different batches, but these are not permanently attached to the Institute.

Paltan Puri  
Haibatpur

Sawnt  
Dabarthala  
Nigdu



## Procedures Adopted.

### *Pilot visits*

The staff members visit the villages and meet with local leaders before the trainees make their two pilot visits for the practicals. During these pilot visits they select the projects to be taken, method demonstrations to be given and select farmers for their Farm plans etc. These pilot visits help them to make the proper selection of items suiting the seasonal requirements and interests of the farmers. These also help to make arrangements for items such as seed, fertilizer, fruit plants implements etc. to be taken along with them. The pilot visits help them in general, to have first hand information about villages, people and situations.

After making necessary arrangements the trainees are sent to villages for stay of about a week in the villages along with a staff member who stays throughout the period to give them on the spot guidance.

### Assignments :

The assignments given to the trainees during village practicals are of two types. They are as follows :

#### *I Group assignments*

Survey.

Film Review.

Projects of youth clubs, kitchen gardening, poultry, dairy and Implement.

Campaigns.

Result demonstrations.

Evaluation of programmes.

#### *II. Individual assignments*

(i) Method demonstrations.

(ii) Farm production plans.

(iii) Case studies.

The participants complete their reports in the village itself. On their return to headquarters the work done and their reports are discussed in class to help exchange their experiences and problems faced in the villages.

### *Amount of work done*

Apart from regular village practicals, demonstrations were laid out in the selected villages.

### *Sugarcane*

Result demonstrations on sugarcane were laid out in the first year in Shamgarh, Dadupur, Jhanjari, Saidpur, Pujam & Khaja Ahmedpur.

These demonstrated all improved practices in the form of a package which was very successful. In that year due to the very low price the farmers did not show much interest in the results in terms of money returns.

### *Hybrid Maize*

Next year Hybrid maize was introduced in these villages where Ganga 101 and Ganga 3 were introduced. The results were very encouraging and the farmers appreciated the method of cultivation, fertilizer application etc.

### *Wheat*

Later Sonora '64 Lerma Rajo and other high yielding varieties were introduced.

The farmers accepted to follow all the recommendations in the cultivation of wheat. As a result they got yield upto 80 maunds per acre. The farmers still look towards the Institute for guidance and help in growing high yielding varieties of wheat.

In the year 1967-68 we took 3 more new varieties of wheat namely S 227, S 307 and 308. The response of the farmers for laying out demonstrations was very encouraging.



### *Paddy*

Similarly, Taichung Native 1 and I.R. 8 Paddy has also been introduced in these villages where farmers have liked them very much for their high yielding capacity.

Apart from these, fruit plants, vegetable seedlings and seeds are also given to the villagers on payment to make them vegetable minded. Mostly the above mentioned items are given to the youth club members.

### **Result demonstration—1967-68 :**

During Rabi season in the newly selected villages, Jamba Bhani khurd, Uchana, Balhri and Jeerbari, result demonstration on wheat were laid out. The new varieties secured from I.A.R.I. were introduced. The new dwarf varieties are S 227, S 307 and 308. All the three varieties were introduced to the farmers in each selected village. Due to shortage of seed only 2 kg. of each variety was shown in 1/5th of an acre with all recommended practices. The results are very promising and farmers are very happy with the results.

### **Basic data :**

In the newly selected villages the basic data on population, education, area under different crops, area under irrigation, irrigation sources, size of farms and kitchen garden etc. were collected for future use in village work. The collection of basic data was done by surveying and interviewing each family and it was consolidated. This data was also used later in the special course conducted for AFPRO group.



### 13. CASE STUDIES

From the very beginning emphasis has been on the case study approach for the instructional staff of the GTCs. This is done with the main objective of developing the skill of interviewing and collection of relevant material for the study of problems of units or programmes in a rural setting. This activity leads to developing analytical skills which are so important to extension teachers. The instructional staff and field officers alike benefit from this approach as they cannot only come closer to examining problems more critically but get acquainted with the complex factors that influence the behaviour of human beings.

During the working of this Institute one hundred and nine case studies in all have been conducted and published in the Institute's publications. These cover 50 case studies of developmental projects and 59 case studies of individuals including farmers, senior Village Level Workers; Agricultural Extension Officers and Instructors of the Gramsevak Sevika Training Centres under training at this Institute. The case studies conducted so far, may be classified as follows :—

(a) Case study of projects - 50.

—Agriculture	13
—Cooperation —	11
—Health Sanitation	7
Food.	
—Education Social	
Education	6
—Panchayats	3
—Poultry Farming	3
—Miscellaneous	7

(b) Case studies of individuals

—Farmers —	4
—A.E.O's.	7
Village Level Workers—	42
Instructors of GTCs—	6

On an average 15 case studies have been conducted in each year. These include the efforts of the participants as well as the staff of the Institute.

Almost all the case studies conducted till 1965 are related to developmental programmes. From the year 1965 onward, the emphasis have been shifted from project studies to individual studies. This has been done in order to feed back the training programme at all levels. The case studies of senior workers and teachers involved in the developmental programme will highlight the attitude, method of working, areas of successes and failures and the responsible factors which in turn, will provide the basis for improving the training programme as a whole. As a result of these concentrated efforts an attempt has been made to find out the reactions of the different categories of workers towards their jobs as well as their training programmes. This has not only helped in developing a training programme more suited to the job requirements but it has contributed in suggesting the modifications in the implementation of the development programmes.

In every course, a well planned programme of case studies is chalked out. A few talks are given to the trainees in order to give them a clear concept of this approach. A tentative proforma alongwith suggestive guidelines is evolved depending upon the type of case as well as the nature of the course. The individual cases are introduced to the trainees who are assigned case studies. The period of about one month is allotted for the completion of different processes of this assignment. A consultant is also attached to a group of trainees in order to guide and help them in conducting the case study.

Besides providing an exercise in conducting the case study, it offers ample opportunities to the different group of trainees of getting closer together. This in turn, helps in getting an insight into the problems of working of the functionary under study.



#### 14. WORKSHOP ON RURAL YOUTH

In the concept of the Community Development programme of the country, the importance of rural youth organisations cannot to be over emphasized. Youth should be so trained and organised as to participate in the total plan of village development.

Rural youth programmes are included in syllabus of the Principal and Instructors course as they are responsible for training the Gramsevak in organising youth clubs. Instead of arranging a series of lectures a workshop on youth programmes is organised to provide a learning situation for the participants.

##### Objectives of youth clubs :

The youth clubs are specialised educational enterprises with the following objectives :—

1. All round development of youth viz. physical, mental and moral development. Emphasis is on the development of individuals and not merely on material and projects which are only the means to an end.
2. To help rural boys and girls to develop desirable values, ideas and standards for farming, family life, community life, citizenship leadership and sense of responsibility.
3. To give youth technical education in farming and community leadership through training in practical and profitable individual and group projects.
4. To train youth in cooperative action by practising cooperation with others for community efforts for the common good in joint projects.
5. To develop qualities of leadership self reliance and devotion of duty.
6. To develop a scientific attitude towards the problem of the farm, home and community.
7. To utilize leisure hours through healthy pursuits.
8. To develop youth into first class citizens who know their rights and responsibilities.

##### First workshop :

Due to the increasing importance of Rural youth club activities it was felt necessary to involve the Principals and Instructors of the Gramsevak Training Centres in training the Gramsevak to organise youth clubs effectively for the first time in 1960.

It was decided to hold a three day seminar in which the topics included in the syllabus could be taken up during this period. In this way this seminar was designed to provide an opportunity for the instructor trainees and the village level worker trainees to participate and study the various aspects of the Rural youth programme.

As the emphasis of the training programme in this Institute is on teaching methods all possible techniques of group methods were used in this seminar. In using the workshop method the trainees had the opportunity of testing various tools in imparting instruction. In this way in addition to making the trainees conscious of the importance of youth activities emphasis was placed on teaching techniques.

By inviting experts and men experienced in the field of youth activities an attempt was made to provide opportunities for the trainees to share the experience of persons actually involved in youth work. The experts served as resource persons during the discussions and also presented various phases of the youth programme.

In the end of the workshop the group devoted its time in bringing out a manual which has been useful to all those engaged in rural youth programmes.

##### Second Workshop :

The second workshop on rural youth was organised in July 65. The participants consisted of nearly fifty senior VLWs and Instructors of Gramsevak Training Centres. The first day was devoted to the presentation by the resource persons and small group discussions and the second day for the plenary session.



**Method of approach :**

The seminar of Rural youth programme was divided into following four topics.

1. Organisational aspect.
2. Plans and projects.
3. Leadership training and development.
4. Evaluation and supervision.

The resource persons enlightened the group on the four aspects and then the trainees were divided into four groups to discuss the items allotted to them.

During the plenary session each group presented its report to the general body which approved the findings with a few amendments.

Each group also prepared economic projects on vegetables and crops.

The proceedings of the workshop the talks of resource persons and economic projects have been compiled in a booklet for wider distribution to the extension workers of training centres.

**Third workshop :**

In the third workshop organised in March, 66 the participants consisted of 15 Vice-Principals and Instructors of GTCs 26 senior VLWs. and 10 youth club members from each club in village Jhanjari, Dadupur and Shamgarh. The workshop was organised for 3 days. The first two days were spent in providing orientation by the outside experts, discussion of different aspects by small group with the help of resource persons and finally pooling the main recommendations in the plenary session.

One of the main features of this workshop was to provide model economic projects to serve as suggestive plans for youth activity.

Under the village development programme a youth club was organised in Jhanjari in November, 1964. It has about 30 members and each member has taken up an economic project of growing vegetables, rearing chicks, growing fruit trees etc.

The second club has been organised in July, 1965 in village Dadupur and members have started sowing of vegetables, fruit trees etc. It has over 25 members at present.

The Institute has a budget of Rs. 2000 as a revolving fund and an effort is being made to utilize it for the youth programmes.



## 15. STUDY TOUR

Study tour forms an important part of each training programme. This educational activity is inter-linked with the other phases of the syllabus. The common approach involves a case study of a village level worker working in the field and the study of the training programme of a Gramsevak Training Centre.

Objectives of the case study of a gramsevak are as follows :

To analyse the role of Gramsevak/Sevika as an extension worker in the context of the training programme at the Extension training centre.

- (a) To study his/her present work—load and distribution.
- (b) To study his/her relationships with various Extension Officers, development departments, project officials, village leaders and villagers.
- (c) To study his/her achievement towards Community Development.
- (d) To study a few phases of the training programme connected with field work.

Such a study is intended to help gain insight into the deficiencies, strong points and loopholes in the training programme. The group findings serve as recommendations to improve the conduct of the training programme at the Gramsevak/Sevika Training Centres.

For the study of the Gramsevak/Sevika training centres, the training programme is divided into the following phases:

- (a) Village work at the training centre.
- (b) Job placement.
- (c) Evaluation of trainees.
- (d) Campus practical.

### Method of study

The group is divided into 4 sub-groups generally. Each group is given one of the above items along with a case study of one V.L.W. for each group.

Three full days are devoted to this programme at the GTC. The groups contact as many persons as possible, whom the VLWs have to meet and work with. Considering the various implications of this study the groups collect comprehensive data and ascertain views and suggestions of officers at the block level, non-officials and village leaders.

Factual data is collected in the following areas:

- (1) Area of operation.
- (2) Items of work and seasonal variations.
- (3) Daily routine of work.
- (4) Records and returns.
- (5) Coordination of various functions.

Work done and achievement if any are studied in the following items of work assigned to Gram-sevaks. Failures or handicaps are also carefully noted.

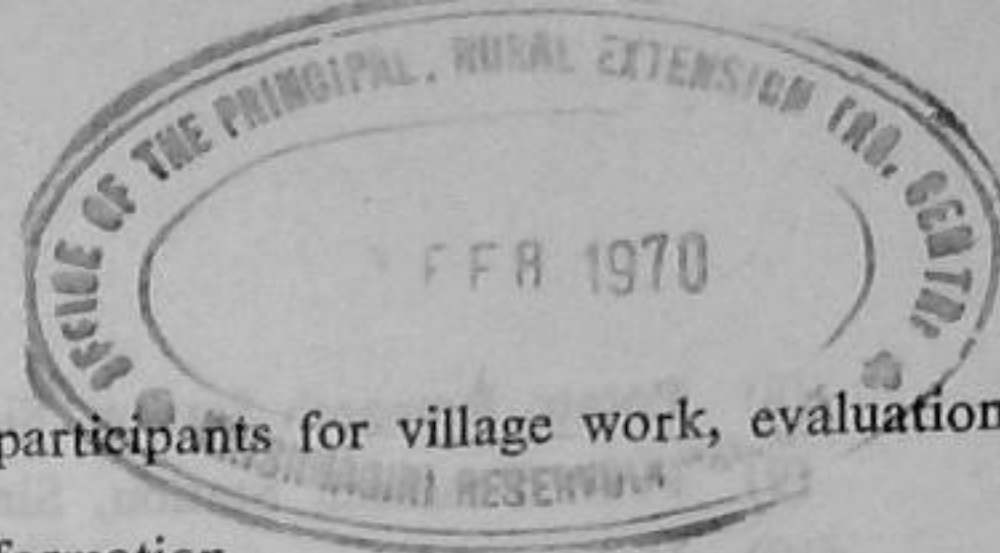
Agriculture, animal husbandry, public health, social education, community works, panchayat work, and cooperation.

A proforma giving a suggestive outline to collect data regarding the case study is given to the participants. This has been found very helpful by the participants.

### Study of the Gramsevak/Sevika Training centres.

A proforma for the study of the various phases of the training programme is given to each participant. This is thoroughly discussed in small groups before they leave for study tour. This proforma has the following information.





- (1) Types of information required to be collected by the participants for village work, evaluation of trainees, job placement and campus practicals.
- (2) Sources to be tapped by the participants to get this information.
- (3) Type of questions to provide a guideline to the participants to frame their questions on that line.

#### Method of preparing their reports

One consultant is provided to each batch, who helps the participants in making their study tour successful and educational.

A comprehensive report of the training programmes in these GTCs as well as the case studies of VLWs and blocks around these GTCs have been prepared by our participants.

So far we have sent our participants to the GTCs mentioned below:—

*Rajasthan*—Kotah, Mandore, Sawai Madhopur and Sanganer block.

*Uttar Pradesh*—Bakshi-ka-talab & Bichpuri.

*Himachal Pradesh*:—Mashobra

*Punjab*:—Batala.

*Madhya Pradesh*:—Obaidullaganj, Antri, Gwalior & Powarkheda.

*Gujarat*:—GTC Anand & EEI Anand.

#### Study of Intensive Agricultural District Programme

It has been a practice for the last few years at this Institute to take up an intensive Agriculture Districts programme for study. A proforma has been evolved for this purpose. The following items are studied:—

- (1) Personnel and training.
- (2) Farm Planning.
- (3) Fertilizers and problems of intensive Agricultural District Programme.
- (4) Improved seeds and godowns.
- (5) Improved implements and marketing.
- (6) Plant protection and horticulture.
- (7) Finance and resources.
- (8) Extension methods and animal husbandry.
- (9) Evaluation.

Each group is assigned to study the respective items during their stay at the District. The following Intensive Agricultural Districts have been studied so far:—

Uttar Pradesh	District	Aligarh
Rajasthan	„	Pali
Punjab	„	Ludhiana
Himachal Pradesh	„	Mandi

#### Research Stations

To encourage the participants to know the latest researches in their field, a research station located near the GTC is included in the tour.

The following places have been visited so far:—

- (1) Poultry Breeders Cooperative Society Gurdaspur, Punjab.
- (2) Cooperative Engineering Society Manufacturers Incubator, Gurdaspur, Punjab.
- (3) Fisheries Research Station, Batala.
- (4) I.A.R.I., New Delhi.
- (5) Govt. Poultry Farm, Gurdaspur.
- (6) National Institute of A.V. Education, Delhi.
- (7) Fertilizer Factory, Nangal, Punjab.



- (8) Potato Research Station, Simla.
- (9) Fruit Research Station, Simla.
- (10) Hybrid Maize Research Station, Chandigarh.
- (11) Planning Research and Action Institute, Lucknow.
- (12) Agriculture University, Pant Nagar, U.P.
- (13) Soil Conservation Farm at Kotah, Rajasthan.
- (14) National Institute of Fundamental Education, Delhi.
- (15) Institute of Psychological Foundation, Mehrauli Road, New Delhi.

The study tours have been found to be extremely useful and educational by the participants. Five working days are allotted for the study tours and 2 adjoining holidays are also made use of for this purpose. In addition to this study tour, we do make small field trips around Nilokheri. The following places are generally visited by the participants :—

- (1) National Dairy Research Institute, Karnal.
- (2) Indian Agriculture Research Institute, Sub-station, Karnal.
- (3) Fish Seed Farm, Saidpur, Karnal,
- (4) Soil Testing Laboratory, Karnal.
- (5) Haryana State Farm, Karnal.
- (6) Kurukshetra University and Thanesar Block.
- (7) Model Agriculture Farm, Barh Shamni, Ladwa, Karnal.
- (8) Model Agriculture Farm, Ladwa, Karnal.
- (9) Swatantar Agriculture Model Farm, Barondi, P.O. Ladwa, Karnal.



## 16. INSTITUTIONAL SEMINAR

### Objectives :

The main purpose of an institutional seminar as a group assignment is to encourage group participation, cooperative thinking coordination and team approach while working on a specific problem.

Institutional seminars as an important group method of teaching, have been frequently used at this Institute. This technique was adopted with a view to encourage participants to explore existing literature connected with their concerned topics for detailed study.

### What it involves

It is an activity in which the emphasis is given on reading the existing literature; collection of pertinent material through various methods; interviewing concerned persons; consolidating reports and its presentations through a group method. Its presentation forms the most interesting part of the whole process, since it helps them to understand the processes of these methods alongwith their strong and weak points. In the end, the presentation of each group is analysed through a different group method.

The institutional seminar is an educative process in which each group as a team examines a problem, presents its findings through a group method and the presentation is analysed in the end by the whole group.

### Method of Approach

The participants are divided into various sub-groups as convenient, and each sub-group selects a topic of its own interest for discussion and exploration. A consultant or a resource person is attached with each of the sub-group with a view to help the participants in their deliberations. Opportunities are provided to each sub-group to have regular meetings and detailed discussions. An attempt has to be made to collect material from all possible sources as mentioned earlier. Usually participants meet once a week to discuss the approach as to how to handle the topic. In some cases outside experts are invited to provide information to the groups as resource persons. Some groups also prepare questionnaires to elicit information on to the groups as resource persons. Some groups also prepare questionnaires to elicit information relevant to their topic within our approach. Then each sub-group prepares a detailed report on the topics selected by them. In order to give more opportunity to become proficient in the use of group methods each group is expected to present its report by selecting by one of the group methods such as panel discussions, forum; symposium, opposing panel, socio-drama or question answer technique. A few talks on group methods are given by the teaching staff in advance, to provide the participants the necessary background information of these methods.

This activity is introduced to the participants a month in advance. The groups meet throughout this period when at the end they finalise their report for presentation.

### Scope and nature of discussions

Participants select the topics of their own interest but they are encouraged to select topics connected with the working of extension programmes, extension training and community development;

So far 35 reports of the institutional seminars have appeared in the summary records published by the Institute. The details are as follows:—

- (1) Community Development, role of different village institutions and functionaries etc.—10.
- (2) Training of extension workers and their problems—14.
- (3) Agricultural Development, applied Nutrition etc.—9
- (4) Miscellaneous—2.



## 17. REFRESHER TRAINING OF SENIOR VILLAGE LEVEL WORKERS

In the early stages of the Community Development movement, it was not possible to give VLWs. comprehensive training due to the great demand. It was commonly felt by the officials and non-officials associated with the programme that the hurried training programme had direct bearing with the performance of the V.L.Ws. in the field and many deficiencies were directly traceable to the lacuna in training. There was general agreement that the V.L.Ws. who had not the advantage of a well balanced training programme should be given better opportunities to remove their deficiencies. The refresher training programme at this Institute was started in August, 1958. It was planned to have four courses per year of a period of two months each. The courses have been so arranged so as to fall in line with the training programme of Principals and Instructors of Gramsevak/Gramsevik Training Centres and workshop wings. A special purpose of this programme has been to take advantage of the presence of the V.L.Ws. and Principals and Instructors on the same campus, so that the instructional staff of the training centres could practise teaching methods in real situation. Besides, both the instructor and V.L.W. trainees could benefit from each other by sharing experiences and learning from each other. Common exercises and practical assignments have proved very valuable learning situations to both types of participants. The case study approach has provided the instructor trainees an opportunity to gain deeper insight of the problems of the VLWs, while on the other hand the VLW trainees have been able to consult the instructor trainees for guidance in tackling field problems in subject matter areas. The main objectives of this programme are as follows :

- (1) To fill in the gaps resulting from incomplete training given earlier.
- (2) To provide an opportunity to the field workers to meet at a common place and exchange their views and experiences.
- (3) To bring them abreast of the latest research results received from the research stations.
- (4) To provide the necessary opportunity for the developing of the skills required to adopt new methods; to reorient them with the concept and philosophy of the community development programme.

### Courses organised :

Since the inception of the scheme 41 courses of two months duration each have so far been organised. 908 VLWs. from the states of Punjab, Haryana, Delhi, H.P., Rajasthan, J & K and M.P. participated in these courses. The details of the participants course-wise as well as statewise are given below:—

Year	1958-59	1958-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	Total
No. of courses.	2	4	4	4	4	4	3	4	4	4	4	—
State												
Delhi	9	12	7	4	10	2	—	3	17	7	5	76
H.P.	4	14	16	13	—	—	—	—	—	—	—	47
Punjab	18	13	32	29	13	33	26	35	22	8	—	229
Rajasthan	—	24	—	—	18	29	18	21	29	19	15	173
M.P.	—	17	29	39	33	36	18	43	36	34	36	321
J & K	—	—	15	—	—	—	—	—	—	—	—	15
Haryana	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	31	80	99	85	74	100	62	102	116	84	75	908

### Syllabus :

The syllabus supplied by the Directorate of Extension, Ministry of Food and Agriculture is taken as a guide. During the first two days of the course the syllabus is finalised through discussion with the trainees which makes them feel that the training programme is directed towards their specific requirements. During the discussion the deficiencies in the knowledge and skills of the VLWs. are specially taken note of. The actual requirements are then included in the syllabus which fulfil the objectives to a major extent.



**Treatment of the syllabus :**

The syllabus is treated as under :

During the training period the activities in the training programme are so arranged so as to provide an opportunity to the trainees to gain proficiency in the following skills which are considered 'must' for the village level workers :—

- (1) Programme planning at the family, village and circle level and their incorporation at the block level.
- (2) Techniques of result and method demonstrations.
- (3) Methods of conducting meetings, camps, seminars preparation and use of simple A.V. aids.
- (4) Technique of conducting a case study for assessing the impact of the approach.
- (5) Technique of giving talks and method demonstrations of specific items.
- (6) Method of working with the groups.
- (7) Keeping them informed with the latest development in their respective fields.

**Treatment of the syllabus :**

- (i) Talks supported by A.V. Aids and discussions.
- (ii) Demonstrations.
- (iii) Oral communication.
- (iv) Seminars.
- (v) Library.
- (vi) Field trips and village practicals.
- (vii) Study tours.
- (viii) Case study.
- (ix) Farm production plan.
- (x) Survey.

As the trainees have been in the field for several years they are out touch with the latest developments in the field of research. As such the required knowledge is imparted to them through talks by the instructional staff of the Institute and supplemented by specialists. Since the participants of this course are quite experienced the treatment of the subject matter content differs quite a bit from the pre-service approach. Adequate use of A.V. Aids is made and after each talk discussions for atleast 15 minutes are held so as to clarify any doubts. Specific problems being confronted by the Gramsevaks in the field are given special attention.

The theory classes are supplemented with practicals at the campus and in villages. Each VLW is also required to conduct a method demonstration as well as give a talk before the class. The other trainees assess the performance of the trainee. In this connection necessary help and guidance is provided by a member of the teaching staff. The subjects are selected for method demonstration are given below:—

- (a) Agriculture
- (b) Animal husbandry
- (c) Panchayat
- (d) Social education
- (e) Agricultural engineering
- (f) Cooperation
- (g) Health and sanitation

The problems mentioned by the trainees on their arrival are consolidated and are given a place in the day-to day programme. As and when different topics are taken up by the lecturers the problems presented by the trainees are highlighted and discussed in detail. If some problems are not covered through discussion or talks separate time is usually devoted at the end of the course to provide solutions. The shortcomings indicated by the trainees are included in the training programme and necessary talks and practicals are arranged to meet the deficiency mentioned by the trainees.

**Problems:**

Keeping in view, the number of subjects and the limited period of two months it becomes difficult to give full justification of the aspects of the variety of subjects. At this Institute, major emphasis is given to Agriculture and allied subjects and subjects like Cooperation, Panchayat, Industries, Health and Sanitation are given less attention.



### Evaluation of the programme by the trainees:

At the end of the course evaluation is done through a proforma developed for this purpose to find out how much of their deficiencies have been covered during the course. The trainees also evaluate the teaching method of the staff, study tour, field trips and other activities connected with the training programme. The trainees are encouraged to give free and frank opinion about the methodology adopted by the Institute in fulfilling the basic objective of this programme.

All the trainees have mentioned that they found this course very useful in getting knowledge and in getting suggestions to their problems and difficulties. Some of the general suggestions given by the trainees for further improving the course are as under:—

- (i) The period of two months is too short to cover their deficiencies in subject-matter.
- (ii) More emphasis should be given to practicals regarding the care and maintenance and repair of tractor and pumping sets.
- (iii) The number of days for field trips may be increased.
- (iv) The period of study tour to different Research station may also be increased.
- (v) More books on Agriculture in Hindi and other regional languages should be made available in the library.
- (vi) The monthly stipend of Rs. 50 may be increased to Rs. 100.



## 18. VILLAGE ARTISANS TRAINING PROGRAMME

It is a well known fact the farmer today is more inclined to use improved agricultural implements than ever before. At the same time, the high prices of the implements discourage him. If the farmers can get the required implements made by their own village artisans, naturally, the cost of production will be minimised and the implements can be purchased by even the small farmers. It is for this purpose that a programme was started for training the village artisans by different States in the repair and manufacture of improved agricultural implements. This wing of the workshop which is attached to Extension Education Institute was established in 1955. Uptil now this workshop imparted training to the artisans only but a new plan has been made also for production of agricultural machinery and to cater to the needs of local farmers.

### Training facilities

The workshop is staffed with one Chief Instructor, two training officers for carpentry and blacksmithy and one fitter who does allied work. This workshop has the facilities like any modern workshop. Machinery like lathe, drill, grinder, welding set (both gas & electric), power hack saw, shearing machine, band saw, power blowers etc. are all fitted according to the training requirements. Apart from this there is a long range of improved agricultural machinery almost of all kinds including pumping sets for basic training of the subject matter and the mechanism of the machinery. For practicals, all the trainees are supplied with a set of blacksmithy and carpentry tools for which they are responsible for its maintenance. The trainees are given a stipend of Rs. 75.00 per month for their maintenance.

### The Training Programme

It provides for 20 trainees to be trained per year. They are selected on the basis of individual performance in the tests and in the interview. One essential requirement for the selection is that the trainee must belong originally to an Artisans family which is verified by the Tehsildar of that particular Taluqa. The rest depends on the capability of the individuals in the practical tests. The requirement that the trainee should belong to an artisans family is because when they go back they may modernise their own workshop and earn more for better living. The candidates who just come to get a certificate to be used for employment are discouraged. The duration of the training is one year and during this period the time is broken up for educational tour, village trips and village practicals and also inplant training in bigger workshops. At the end of the year when the trainees are about to leave they are given implements worth Rs. 50.00 which are made by themselves. This is given in order to provide a sample of the implements as well as to encourage them to start their own workshops.

The day to day programme consists of one hour theory and 5½ hours of practicals. The subjects of studies are further divided into following which are inclusive of both theory and practicals:

- (1) Basic knowledge of the principles of Blacksmithy tools in making Agricultural machinery.
- (2) Basic knowledge of the principles of Carpentry tools.
- (3) Knowledge of Agricultural machinery.
- (4) Knowledge of Engines and electric motors.
- (5) Knowledge of different irrigation devices.
- (6) Knowledge of allied workshop jobs; such as turning, drilling, grinding, welding and sawing.

In the practicals a very close watch is kept on the trainees while working with power machinery, particularly on those who have less grasping power of machines. In most cases except where required only working knowledge of the machine is given so that they may operate it and when they get used to it then the chances of accidents are understood by them and they work accordingly.

### Educational tour and other trips

During this course one educational tour was arranged which covered Bundi, Allahabad, Lucknow, Kanpur & Delhi. The visits were mostly of the educational Institutions and the agricultural implements manufacturers of these places. The idea was to give them the importance of this particular profession which they could assess from these tours. The entire expenses of such educational tours are borne by the Govt. Apart from these there were small trips to Pipli, Ladwa and Karnal to show the local manufacturers and also an ex-Artisan trainee who has established his own workshop.



### Follow-up Results

After the last course was over the Training Officers were sent to find out the improvements made by our ex-Artisans trainees in their workshops and also to help them in the areas of their difficulties. Since the trainees come from long distances it was not possible to cover all the places but the nearer places were covered. As they are scattered, follow-up was done through letters and questionnaires also. The information gathered is given as follows:—

(1) No. of trained Artisans from E.E.I. till March, 1969.	..	163
(2) No. of Artisans who are engaged in their profession.	..	41
(3) No. of Artisans employed in service including the Govt. Department.	..	94
(4) Unemployed or information not available of the Artisans till March, 1969.	..	28

For rest of the trainees the information could not be gathered as either their addresses have changed or they did not reply.

### Analysis of the follow-up

From the questionnaires it is a common complaint that the State Governments do not provide them loans for the establishment of workshops. Those who have already been in this profession want to improve their workshops but due to lack of capital they could not do so. There is an instance of an ex-Artisan from Manipur who got a big loan from his State Agriculture Director for expanding his workshop and also an award of a sum for his outstanding work. If similar encouragements are given to all the trained Artisans then there is no reason for the trainees to retain their own old profession. The main reason for those who have not gone back to their occupation is lack of funds.



## 19. FOLLOW-UP PROGRAMME

As one of the main functions of this Institute is to provide guidance and counselling to instructional staff of the GTCs in improving the quality of teaching, follow up visits of these centres by the teaching staff of the EEIs form an integral part of the whole training programme. These visits also help in providing a two way channel between the E.E.Is and the G.T.Cs and thus help in improving and modifying the training programme at the EEIs on the basis of the requirements of GTCs.

### Objectives

The follow-up programme is being conducted keeping in view the following objectives:

- (1) To assess the impact of training on the participants who have attended courses at the E.E.Is.
- (2) To strengthen the training programme at the GTCs.
- (3) To improve the training programme at E.E.Is. based on the requirements of GTCs.
- (4) To give individual guidance on the spot to the teaching staff of the GTCs.
- (5) To assist the Principals of the GTCs. in improving the quality of teaching and acting as a liaison between the GTCs and the Directors of training.
- (6) To gain a better understanding of the working of GTCs.
- (7) To remove misconceptions spread by dissatisfied Instructors and to give moral encouragement to the trainers to improve further.

### Basic considerations

Usually a period of two months has been allotted for this purpose, but in the Annual Conference of the Principals of EEIs held in 1964, this period was considered inadequate. It has been decided that more time should be given for the follow-up programme so that each GTC can be visited atleast once in two years.

Various approaches have been used in the past where the entire staff as a team had visited all the centres of one State. A plan to distribute the members of the teaching staff in the various centres of a State and to meet at the headquarters of the State was also tried. Visiting a couple of centre in each State by a staff member was tried out later. The latest approach that has been decided upon is the visit of two members of the staff as a team for a period of 5 days exclusive of travel in each GTC.

### Coverage

The gap period is being utilised for follow up visits of the GTCs at this Institute. Teams comprising of two staff members are formed in such a way that two teams are always out while one remains at the Institute.

So far 63 GTCs from 13 States have been visited, of which 23 centres have been visited twice or thrice. The details of the GTCs visited are as follows:

<i>State</i>	<i>Name of GTC</i>	<i>Year(s) of visit</i>
Assam	Upper Shillong	1960, 1967.
	Jorhat	1960, 1967.
	Khannapara	1960, 1967.
	Arunachal	1960
Andhra Pradesh	Gopannapalam	1961
	Rajendranagar	1961
	Nandyal	1961
Bihar	Patna	1966
	Ranchi	1966
	Mungy	1968
	Muzzafarpur	1968
Bengal	Fulia	1964
Gujarat	Morvi	1961
	Junagarh	1961, 1962.
	Surat	1961, 1962.
	Baroda	1962
	Anand	1962



<i>State</i>	<i>Name of GTC</i>	<i>Year(s) of visit</i>
Himachal Pradesh	Mashobra	1961, 1966.
Madras	Bhawanisagar	1961
	Pattukottai	1961
	Coimbatore	1961
	Kallupatti	1961
Madhya Pradesh	Chandkhuri	1961, 1963
	Satrati	1963
	Antri	1963
	Nowgaon	1963
	Obaidullaganj	1963
	Powarkheda	1963
	Betul	1963
Maharashtra	Sindewahi	1961
	Manjri	1962
Orissa	Balasore	1960
	Mahesapat	1960
	Rangailunda	1960
	Bhubneswhar	1960
Punjab	Batala	1961, 62, 65 & 68
	Nabha	1962, 65 & 67
Rajasthan	Mandore	1965, 67.
	Sawaimadhopur	1965, 67.
	Kotah	1961, 68.
	Garhi	1965
	Tilaunia	1965
	Deoli	1962
Uttar Pradesh	B.K.T., Lucknow	1962, 65, 69
	Baraut	1965
	Bulandshahr	1965, 68
	Bichpuri	1966, 69
	Chirgaon	1964, 66
	Doharighat	1962, 66
	Faizabad	1965, 69
	Gorakhpur	1966, 67
	Gazipur	1965, 67
	Gurukul Kangri	1965, 69
	Hawalbagh	1965
	Kalakankar	1962
	Bakewar	1965
	Lakhaoti	1965, 68
	Pauri Garhwal	1967
	Pratapgarh	1966
	Rampur Maniharan	1966
	Rudrapur	1962, 67
	Asafpur	1967
	Mainpuri	1968

#### Methods and procedures

In order to achieve the objectives of the follow-up tours, the following methods and procedures are being adopted:

- (1) Collection of information regarding instructional facilities available at the GTCs/GSTCs from the Principal/Chief Instructors on the prescribed proformas evolved especially for the purpose. This includes questions related to the historical background of the GTC/GSTC, type of courses; staffing pattern; physical facilities; teaching aids etc; selection of trainees; treatment of the syllabus including farm, village and campus practicals; evaluation of trainees and co-curricular activities.



- (2) Collection of basic information regarding the instructional staff of the centre on a proforma which is distributed to each Instructor in the beginning. This includes information regarding age, education, training received, experiences held, work load, teaching material, teaching aids etc.
- (3) Study of the impact of the training—a proforma has been evolved to be filled in by each Instructor who has been trained at the Extension Education Institute. This proforma includes different rating, performance and attitude scales, by which the effectiveness of the different aspects of the training imparted at the EEI is being measured. It also records the areas of deficiencies and the training requirements of the Instructor.
- (4) Observation—Observation of the teaching facilities and the staff performance in class room and field situations forms an important part of the follow-up visits. The visiting team looks into all facilities having a direct bearing on the teaching programme such as library, museum, farm, audio-visual aids, class rooms, hostel etc.

Similarly, the presentation of lesson plans of each individual Instructor is also observed by the visiting team alongwith the concerned Principal in terms of effective communication, subject matter and teaching ability. In the end, the findings of such observations are discussed with the individual Instructor with a view to provide guidance and highlighting areas of improvement in his presentation.

#### **Staff conference**

It has been helpful for the visiting staff to meet entire teaching staff of the GTC in the very beginning just to impress upon them the objectives for the follow-up visit and the method of approach to be adopted. A general staff meeting is called and findings are put before the whole staff. Suggestions and comments are also placed before it.

#### **Individual conference**

A programme is drawn to meet every individual staff member of the GTC for atleast an hour preferably after his or her presentation. This approach is being used mainly to give guidance and counselling to the instructional staff to make them aware of their strong points and limitation and to give them confidence. During this conference the entire equipment, teaching aids, lecture notes and lesson plans are examined and suggestions are given to improve upon them.

#### **Guidance exercise**

During this programme some assignments in the form of lesson plans and method demonstrations are given to take the benefit of the staff of Extension Education Institute in developing the suitable teaching material.

#### **Report**

A report on each individual instructor giving details of background, experience, teaching load, lesson notes and equipment and the observation of lesson presentation with suggestions is prepared and handed to each individual and the Principal.

#### **General findings of the follow-up programme**

The follow up visits of GTCs made by the staff members of this Institute have highlighted a number of important aspects of the working of GTCs which have a direct bearing upon effective teaching. These findings have been summarised below :—

1. It is encouraging to note that most of instructors of GTCs in the States have given some thought to the preparation of lesson plans and their presentations.

It has also been observed that instructors who have not yet been trained get the necessary help from their trained colleagues in the preparation and presentation of lesson plans.

The topics allotted to the respective staff members are not covered by lesson plans. In some cases they have not been revised. At some centres it is not a practice to use lesson plans. Talking points are used in its place.

2. The Agricultural farm is the most important part of the teaching programme but some centres do not have sufficient land for farm practicals. Some centres are dependant upon land owned by other in situations. These institutions grow a few commercial crops in which the educational aspect is almost neglected.



Although few of GTCs possess agricultural farms they are far off. At some places irrigational facilities are lacking without which practical teaching cannot be made effecting.

3. The library plays an important role in the training of VLWs but most of the books available there are found in English. Technical books in regional language are lacking. In some centres the latest arrivals in the library are bought to the notice of staff members but this practice is not followed in all the centres.

4. It is observed that a good number of instructors at all GTCs have prepared lecture notes, talking points and lesson plans but some of them are not complete and not in a systematic form. The lecture notes of some instructors need revision incorporating the latest information. Some instructors have referred to the sources of information but most of the instructors need to follow this rule.

5. It is observed that GTCs are having a good number of untrained instructors. Frequent transfers of the instructors to their parent departments affect the training programme adversely.

There are quite a few instructors at each GTC who inspite of working there for several years have not received any training.

Similarly, some instructors have remained for a long period at the GTCs without any change.

6. A few Instructors are allotted subjects in which they have had no subject matter training.

In the syllabus, with the emphasis on agriculture, the weightage on non-agricultural subjects such as public health, panchayat, cooperation etc. have been reduced considerably which makes it difficult to deal with.

7. Most of the Centres are deprived of the facilities of dairy and poultry for training purposes. Where there are agricultural farms attached to the GTCs more attention is necessary to involve the trainees more effectively in a learning situation than merely to substitute them as labourers in agricultural operations.
8. It has been observed that most of the GTCs are not in direct touch with the research stations or agricultural research farms, with the result the new findings reach to the GTCs very late.
9. There are some centres which have facilities of projectors and visual aid equipments. Most of the centres do not use these facilities as a result these visual aids are not utilized in teaching situations.
10. Most of the training centres provide opportunity to the trainees for team work, cooperative thinking and social gathering in the form of trainees panchayat and trainees cooperatives.
11. In the preparation of visuals some Instructors at the GTCs are very resourceful by making use of such trainees who have artistic talents. If this is followed, a good amount of teaching aids can be made available to the GTCs.
12. There are some Instructors at the GTCs who strictly follow the traditional method of lecturing and giving dictation. There are also a few Instructors who have started using group methods of teaching such as lectures followed by discussions, small group discussions, question-answer method etc.
13. Some of the GTCs situated in the remote areas, are lacking medical and educational facilities for their family and children.
14. Most of the GTCs have provided to its teaching staff with residential facilities.



## 20. RESULT DEMONSTRATION ON FARMER'S FIELDS

Result demonstrations have become an integral part of the training programme at this Institute. The participants of the various courses are involved at every state while the staff members maintain continuity by contacting the farmers and keeping records. This extension method has been extremely effective on the one hand in convincing the farmers regarding the improved varieties and the other hand providing the trainees with an opportunity of conducting result demonstrations. This method has provided the trainees a learning situation in the process of contacting the farmers, selecting leaders, studying the reactions of the farmers at various states and making efforts to convince the farmers regarding the utility of certain improved methods. In some cases these demonstrations have helped the trainees to conduct case studies and analyse the effect of the success or failure in these attempts. The objective of these demonstrations may be listed as below :

1. To furnish local proof of desirability of the improved practices of cultivation and thus creating confidence of the people.
2. To provide an opportunity to the teaching staff of the Institute to layout demonstrations on cultivators fields and develop confidence in the practice.
3. To create confidence of the people in the staff of the Institute whose regular functions include village extension work.
4. To help farmers to grow more food and improve their yield and income.

A beginning in this connection was made with laying out of result demonstration on maize and sugarcane. New and improved varieties with all package of practices were introduced to the farmers of the adopted villages. The major success in field was obtained with the results of Sonora 64 in the year 1965-66. The very first year when this dwarf variety was grown, it became evident that the yield barrier has been broken. Farmers who lacked motivation for taking up a whole package of new practices for maximising yield until a few years ago now became exceedingly enthusiastic and started crowding our institute with demands for seeds and the new varieties. This proves that it is only where a dramatic change is brought about in the yield, the stimulus for action necessary for change is provided. In the beginning the farmers were looking forward to getting all the inputs free from the Government. We started with providing the selected farmers with 50% of the facilities. With the success of the Mexican wheat Sonora 64, the farmers were prepared to pay for all expenses connected with fertilizers, insecticides and seed etc.

Being encouraged with the results of Mexican wheat in the selected villages it was decided to lay out demonstrations of growing Taichung Native -1 (Paddy) in Kharif 1966. Twelve demonstration plots were laid out on selected plots of farmers in the villages attached to this Institute. A calendar of operations of T.N. 1 was prepared and circulated amongst members of the teaching staff and a copy of the same in Hindi was provided to the farmers. The highest yield of 33.03 quintals per acre was obtained on the field of Shri K.D. Diwan of Nilokheri. In most of the demonstration plots the yields were about 25 quintals per acre. The general observations about the demonstrations of Kharif 1966 & T.N. 1 are as below :

- (a) We have observed that 25 beds of  $24' \times 24'$  are enough for transplanting one acre of T.N. paddy. Recommended 250 grams of seed of this variety is also considered more and in fact 200 grams of seed would be quite adequate to cover 100sq. ft.
- (b) Under Nilokheri conditions where the nursery is raised mostly with irrigation water and where the chances of heavy rains during the growing period of nursery are very rare, raised seed beds are not needed. Raised beds with insufficient flooding with water cause black alkali to appear on the surface of the bed causing injury to the seedlings. Hence sowing under these conditions may be done in beds of  $25' \times 4'$  surrounded by a blank space of 1' all around. The space could be formed into a light bund of about 2" height after sowing when done early in the season i.e. in the first fortnight of time and may be left if the sowing is done in the second fortnight of June and if the sowing is done in the first fortnight of July, these spaces may be for need into light drains of about 2" deep.
- (c) This variety is suitable only for areas where water during the rainy season does not accumulate to the extent of standing in the fields for weeks together.
- (d) Rice is not the staple diet of the farmers of this area. Most of the people grow fine quality of Basmati for themselves. Hence it may not be consumed locally and Government will have to make some arrangements for its procurement and transportation to other areas.



- (e) In the market of Nilokheri and Taraori (district Karnal Haryana) this variety has been sold at 1 1/2 less per quintal even as compared to Jhona. The difference in the market value of Basmati and T.N.1. is to extent of Rs. 10 per quintal. Some of the progressive farmers of this area have been producing 40-50 maunds of Basmati per acre. Such farmers may not like to adopt this variety because of the increased cost of cultivation.

As compared to the prevalent local varieties of paddy this is short duration paddy variety which gives adequate time to the farmers for preparation of lands for Rabi sowing.

In Rabi 1966-67 demonstrations plots to compare Sonora 64 with Lerma Rajo were laid out in the villages attached to the Institute for intensive development.

#### General conclusions :

1. Mexican wheats are more high yielding than all the local prevalent varieties of wheat.
2. Sonora 64 has shown better results where even late sowing was done. Only in one village the yield of Lerma Rajo has been better due to the following reasons:-
  - (a) Lerma Rajo which prefers early sowing was sown in the second week of November, 1966.
  - (b) The farmer by mistake had sown Sonora 64 little deeper than is normally required.
3. In the villages around Nilokheri where Basmati paddy is grown Rabi sowing is considerably delayed. In the existing circumstances Sonora 64 is more suitable than Lerma Rajo.
4. The fields which were not covered with Basmati paddy in Kharif may be utilised for sowing Lerma Rajo.
5. Due to the effect of the result demonstrations conducted in 1965-66 and 1966-67 these new high yielding varieties of wheat have become quite popular with the farmers.

In kharif 1968 result demonstrations on I.R.8. were organised in the attached villages. Due to the late receipt of seed there was delay in sowing the nursery. As a result there was delay in maturity due to the cold weather which started this year little earlier. We are not satisfied with the results and plan to concentrate this year by timely sowing the I.R. 8 paddy.

#### Demonstration on high yielding varieties—wheat for the year 1967-68.

Being encouraged with the results of Mexican wheat in the selected villages in the years 1965-66 and 1966-67 it was decided to continue the programme in this year also. As such necessary arrangements of seed was made through I.A.R.I. New Delhi. The following quantity of seeds was obtained :—

S-308	20 Kg.
S-307	20 Kg.
S-227	20 Kg.

The teaching staff members of the Institute visited the villages and selected suitable farmers who will be willing to undertake demonstrations and carry out the detailed instructions regarding the cultivation of these improved varieties. It was decided that the entire cost of seed, fertilizer and insecticides etc. would be borne by the farmers themselves. Those farmers who agreed to lay out these demonstrations were asked to execute a bond wherein it was laid down that the 50% of the production would be sold by the farmers on the recommendations of the Institute at prevalent Government rates. Eleven farmers were selected in the villages and in seven different small patches these varieties were sown at the campus. The condition of these 18 plots except two in village Bhaini Khurd was good. Village Bhaini Khurd was severely hit by a hail storm on the 20th February, 68 and both the result demonstrations were completely destroyed.

The salient feature of the varieties as well as the package of practice adopted are given below :—

S. 308. Dwarf, good tillering, early maturity, fully bearded brown ears, resistant to rusts, bold semi-hard amber, grains, shattering tendency, suitable for very high soiled fertility conditions.

S. 227 : Dwarf with stiffer straw, profuse, semi-synchronous tillering, late maturity, impressive fully-bearded red ears, susceptible to rust and leaf blight, short white grains suitable for moderate and very high fertility.



S. 307 Dwarf, profuse, tillering, fully bearded, brown ears, resistant to rusts, white bold grains, suitable for intensive cultivation.

*Selection of land :* Select a well levelled field, near source of irrigation.

*Seed bed preparation :* Prepare a levelled well pulverized and firm seed bed. Field should be ploughed deep (7"-8") followed by harrowing to make a good seed bed. Before final cultivation leveller should be used to level the field. If white ants are problem then mix 4 lbs. BHC 10% sub plot (1 5th acre) or about 2 lbs. of Aldrine 5% dust. This will also protect the crops against Bujia.

#### **Fertilizer application :-**

These varieties can make use of high doses of fertilizer as they are resistant to lodging. For high yield the following amount of fertilizer may be applied per plot :—

- (a) *Nitrogen* (Ammonium sulphate or Calcium Ammonium Nitrate) 66 lbs. of Ammonium Sulphate or C.A.N. may be applied before sowing. 34 lbs. may be given as top-dressing. In case of light sandy soil 50 lbs of CAN or Ammonium Sulphate should be applied as basal and 50 lbs. of as top dressing. The fertilizer earmarked for top dressing may be applied in two stages i.e. half at the time of second irrigation and half at dough stage.
- (b) *Phosphorus* : 50 lbs. of single superphosphate may be applied before sowing.
- (c) *Potash* : 10 lbs. of muriate of potash per plot before sowing.



## 21. INSTITUTE PUBLICATIONS

From the very first course at this Institute it has become a tradition to bring out a publication at the end of each course organised here giving details of the activities and assignments during the training period. These publications mainly contain the tentative syllabus and its treatment designed for the particular course, the synoptic notes of the lectures cum discussions, the group and individual assignments and the projects, plan and reports prepared by the participants. Sometimes the evaluation of the participants of the previous course is also included. The characteristic feature of this publication is that it is ready on the last day of each course and distributed to the participants as they leave on the final day. The main purpose of producing this booklet is :

1. To give reference material to the participants for their own work at their centres.
2. To provide suggestive guidelines to the instructors of the 100 centres in the country.
3. To reach such instructors who are new to the job of teaching and preparing lesson plans.
4. To lay out plans for demonstrations that can either be followed or amended.
5. To orient fresh instructors for the training programme at the E.E.I.s.
6. To acquaint the Principals, Directors of training and other State Officials with the techniques of training used for their comments and suggestions.
7. To inform other institutions of training and Extension wings of the colleges of the method approach used for inservice training and to invite their comments.
8. To fill in the gap of practical oriented literature so badly needed in the G.T.Cs.
9. To encourage instructors to put in their best efforts in preparing the assignment so that they could be selected for inclusion in the booklet.
10. To be treated as an incentive for due recognition.

Almost all the publications have appeared under the title "Summary Record" since it records selected attempts made by the participants of the course as well as the staff of the Institute. Later on, several new courses have been organised by this Institute, particularly to impart training in extension teaching methods. Keeping this specific purpose in view several publications have appeared under the titles "Agriculture Extension" "Animal Husbandry Extension" "Workshop on teaching methods" "Extension" methods and so on.

Besides these records of the activities undertaken in each course, the booklets of special interest have also been published by the Institute on the following items :—

1. Suggestive lesson plans.	4 booklets.
2. Method demonstrations	1
3. Village practicals.	2
4. Rural Youth Programmes.	3
5. Training in Agri. Engineering.	1
6. Case Studies.	2
7. Recipes.	2
8. Programme planning for Agricultural Extension	1

This Institute has produced in all 19 Summary records for the instructional staff of T.T.C.s: 11 publications for the Extension Officers; and 14 publications of special interests.

---



## APPENDIX

### TENTATIVE SYLLABUS FOR THE COURSES FOR PRINCIPALS AND TEACHING STAFF OF GRAMSEVAK GRAMSEVIKA TRAINING CENTRES IN TEACHING METHODS AND COMMUNICATION MEDIA.

#### I. EXTENSION EDUCATION AND PROGRAMME PLANNING IN AGRICULTURAL PRODUCTION:

This course is broad in scope covering such items as the Five Year Plans; Organisation, Philosophy and objectives of the National Service and the Community Development Programme, the nature and role of the Extension Education in developing people and helping them learn ways to meet their needs through aided self-help etc. The course is designed to provide a basic grounding and orientation for all trainees, with special emphasis on agricultural production.

It covers all the basic aspects of planning a programme for village, deal with problems relating to the analysing and evaluation of situations, assessing the felt needs of the people and deciding the objectives and devising the means of attaining them.

1. Philosophy and principles of Extension—meaning and scope of extension — basic concepts—change of mental outlook —human behaviour — attitudes —objectives —educational development —voluntary participation — development of the individual and family.
2. Cooperative Extension work in U.S.A., Land Grant College, duties of county agricultural agent, approach to Extension work, comparisons.
3. System of integration of research, education and extension in the agricultural universities of India
4. Professional competence of Extension worker.
5. Community development programme and its critical analysis by various bodies.
6. Trends in Indian Planning.
7. Programme Planning—definition — principles and procedures—analysis of the situation, objectives, teaching — content and method — evaluation — reconsideration.
8. Village agricultural production plan—collection of data, problems, solutions, plan of work, follow-up, evaluation.
9. Team work and administrative coordination, principles and practice of administrative coordination.
10. Agricultural Extension Administration.
11. Role of local Institutions in planning and implementation of agricultural production programmes — panchayats, cooperatives and schools.
12. Role of Extension worker in increasing agricultural production.
13. Follow-up, its importance and significance in training programme.

#### II. TRAINING OF FARMERS AND RURAL YOUTH :

This course aims at improving the efficiency of the human input in the programme of agricultural production in the country. The training of farmers is considered an essential input. The training of farmers will consist of the imparting of the skills necessary for undertaking improved agricultural operations, the availability and assimilation of information on the improved practices and the inculcation of the right attitude towards new ideas and practices.

1. Current problems affecting agricultural production in India.
2. The new strategy of agricultural production in India.
3. High—yielding varieties programmes—objectives, content, administration, supplies and review of progress.
4. Characteristics of farmers as adult learners.
5. The scheme of Farmers training and Education in the High Yielding Varieties programme Districts.
6. Procedure and Methods of training the farmers —selection of farmers — the syllabus, physical facilities, teaching materials —follow-up.



7. Developmental needs of youth-rural youth programme—role of young farmers in agricultural production.
8. Step-by-step organisation of young farmers clubs in the village, block, district and state levels.
9. How to prepare agricultural and animal husbandry projects for young farmers.
10. How farmers accept new ideas—principles of diffusion—adoption process, adopter categories—their characteristics, utility in Extension.
11. Factors influencing adoption of new farm ideas—motivation—incentives to farmers and young farmers.
12. Recommendations of conferences on Extension training and Intensive Agricultural Programmes on farmers training—Views of experts and organisations.

### III. EXTENSION TEACHING METHODS AND COMMUNICATION PROCESS :

This course focuses on the nature and use of the various Extension teaching methods and principles of the use of audio-visual materials in the teaching process. It includes such items as :—

- (a) Principles of learning and teaching.
- (b) Characteristics and effective use of various teaching methods.
- (c) Nature and role of visual and audio-visual materials in teaching.
- (d) Development of skill on the part of the trainees in the actual use of teaching methods.
- (e) Problems relating to effective communication and ways to solve them.

#### A. Educational Psychology :

1. Principles of teaching and learning—theories of learning—individual differences, interest and attention.
2. -do-
3. Course outline—its importance—essential elements and how to develop a course outline.
4. -do-
5. Lesson plans—importance of preplanning, criteria of a good lesson plan.
6. -do-
7. Effective techniques of conducting a class—elements involved—teacher, subject matter, learner, physical facilities and teaching methods.
8. The function and process of counselling—guidance—role of a teacher as a guide—its need and ways to make it effective.
9. Effective techniques of oral communication.

#### Communication Process :

10. Extension teaching methods, characteristics of extension methods, selection and use.
11. Programmed instruction.
12. Process of communication in teaching—nature and importance of communication, key elements of communication.
13. How to conduct method demonstration? Definition, importance, steps and problems.
14. How to conduct result demonstration ? Definition, importance, steps and problems.
15. Exhibition—role in Extension education, organisation, effectiveness.
16. Practicals and their educational value—how to conduct practicals.

#### C. Audio-visual Education :

17. Audio-visual materials in Extension teaching—significance of audio-visual communication in education—psychological basis of learning through audio-visual materials.
18. Operation, constructional details and techniques of handling the opaque projector and slide projector.
19. Operation, constructional details and threading of a victor 16 mm film projector.



**D. Visual Aid Workshop :**

- (i) Audio-visual teaching materials—various types—merits and demerits.
- (ii) Chalk board—how to make effective use of it.
- (iii) Display boards for teaching—content, background devices and management.
- (iv) Charts—types of charts, their construction and use.
- (v) Flannelgraphs and flash cards—importance, construction and their effective use.
- (vi) Poster—criteria of a good poster, effective use in Extension.
- (vii) Models—types of models, how they are used, planned, designed and constructed.
- (viii) Puppets—different types of puppets, their features and use as a tool of communication.
- (ix) Drama—as a tool of Extension agency—advantages and disadvantages.
- (x) Conducted tours—criteria for planning a tour and some tips on making it educational and effective.
- (xi) Film strips and film slides—various types their effective use in teaching.
- (xii) Films—importance in Extension teaching, preview of films—advantages and disadvantages.
- (xiii) Film appreciation—meaning and principles of reviewing.
- (xiv) Production and use of literature, *e.g.* pamphlets, news, stories etc.

**E. Practicals :**

- (xv) Formulating course outlines in various subject-matter areas.
- (xvi) Developing of teaching plans in their respective subjects.
- (xvii) Operation, constructional details and techniques of handling the following projectors.
  - (a) Opaque projector.
  - (b) Slide „
  - (c) 16 mm film projector.
- (xviii) Preparation of the instructional aids as a group project on an educational topic pertaining to the syllabus at Extension Training Centres for example :
  - (a) Poster
  - (b) Chart
  - (c) Flash cards
  - (d) Flannelgraph
  - (e) Model
  - (f) Puppets
  - (g) Hand made slides.

**IV. RURAL SOCIOLOGY :****A. Basic Information :**

1. Rural Sociology—definition, scope and importance. Relation of Rural sociology with Extension Education.
2. Elements of rural society—distinguishing features, structure and analysis—their application to rural society.

**B. Leadership in Extension :**

3. Objective and need of group—leadership in Extension teaching—definition, classification and traits.
4. Method of selection of leaders in Extension. Basic patterns of leader and group relationship in rural society.

**C. Rural Community Organisation & Group Mobilisation :**

5. Community organisation—principles and method—problem relating to community organisation.
6. Group—type and characteristics of group—cohesiveness conflict—decision making in group—Extension work through group.



**D. Cultural Change :**

7. Cultural change—definition—types and process of cultural change—factors causing change.
8. How to bring about a change ? Method and techniques.
9. Social and cultural context of planned change.
10. How to write a case study ?

**E. Group Methods in Extension :**

11. Group methods and their importance in Extension teaching process.
12. Various types of group methods. Advantages and limitations.
  - (a) Small group discussion.
  - (b) Large group discussion.
  - (c) Panel
  - (d) Symposium.
  - (e) Forum
13. How to lead a group discussion? Role of a leader in a discussion.

**F. Social Psychology :**

14. Social psychology, traits of village people. Behaviour pattern —basic knowledge of physical, social and psychological needs of man.
15. Essential elements of social psychology and its learning on extension teaching process.

**G. Evaluation in Extension Teaching :**

16. Importance of evaluation—definition—steps in evaluation—criteria of effective evaluation.
17. Methods and techniques—as related to the classroom teaching—village level workers in the block —with a view to find out merits and demerits to improve the training.

**V. AGRICULTURAL ECONOMICS AND FARM PLANNING :****A. Agricultural Economics :**

1. Bhoodan—Gramdan movements—its philosophy, growth and economics—its impact on agricultural production.
2. Principles and process of economic development—economic institutions—characteristics of under-developed economy—importance of capital—different sources—savings.
3. Role of agriculture in economic development of India.
4. Population problem—population explosion, its effect on development, income and food supplies.
5. Cooperative farming—concept, types and growth in India—its influence on agricultural production.
6. Service cooperatives—function, linking, credit with production, marketing and loan payment. Financial resources—progress, its role in agricultural production and extension education.
7. Cooperative marketing of agricultural produce in India—procedure, advantages, progress and problems.
8. Cottage and small scale industries—objectives, industrial cooperatives—functions and progress. Various organisations which help in the development of agro-industries. Its importance in agricultural development programme.
9. Steps in conducting social surveys—planning—collection—analysing—presenting data.
10. Methods used in surveys—observation—sampling—statistical methods—interview—schedules—questionnaire etc.
11. I.A.D.P. and I.A.A. programme—origin, objectives, content, administration, supplies and finance, review of progress.
- 12.



**B. Farm Planning :**

13. Farm management—definition, principles and Objectives, layout and organisation, Extension and Farm management.
14. Fundamentals of farm planning, definition, principles, methods, characteristics, use in Extension teaching process.
15. The farm planning process—resources, strong and weak points, improvements introduced, alternative plan, comparisons, execution and problems of farm planning, follow-up, evaluation.

**VI. HOME SCIENCE**

1. Home Science and its importance.
2. Role of Farm Women in agricultural production.
3. Problems of diet and nutrition in rural areas.
4. Balanced diet—constituents of balanced diet, balanced diet for different age and occupation groups.
5. Applied nutrition programme.
6. Importance of kitchen gardening.
7. Importance of family planning—merits and demerits of different methods. Contribution of women extension worker in educating village ladies.
8. —do—
9. Organisation and functions of Grameen Mahila Sangh, Mahila Mandals and Balwadis.
10. Problems of rural health and sanitation.
11. Problems of home science extension in rural areas.



## APPENDIX

### THIRD INTEGRATED COURSE FOR AGRICULTURAL EXTENSION OFFICERS

#### TENTATIVE SYLLABUS

The main objective of the Integrated approach for Agricultural Extension Officers is to combine the latest information of the results of research in agriculture with the skill for using extension methods. The outline of the syllabus covers the major portion of selected topics connected with the significant areas of agricultural production alongwith the topics dealing with extension methods, techniques and communication media and selected areas of rural sociology and agricultural economics. The specific Objectives of this syllabus and its treatment are as follows :—

1. To acquaint the Extension Officers with the latest developments in the field of agriculture.
2. To develop a better understanding of the latest schemes and projects connected with farmers training and agricultural production.
3. To stimulate interest among these extension workers and create confidence in the practical use of extension methods as related to their subject matter.
4. To develop the capacity for analysis and clear thinking.
5. To help the extension workers to become more effective in the following skills ;
  - (a) Proficiency in conducting farmers' training programmes.
  - (b) Ability to lay out method and result demonstrations.
  - (c) Use of simple visual aids and preparation of useful literature.
  - (d) Skill of handling plant protection equipments and materials.
  - (e) Skill in use and demonstration of selected agricultural implements and machinery.
  - (f) Efficiency in the preparation and application of crop production plans.
  - (g) Skill in planning and surveying small agricultural projects and writing of case studies.
  - (h) Skill in evaluating extension programmes.

#### Highlights :

This syllabus includes areas on technical subject matter relating to soils, fertilizers, irrigation and drainage, plant protection and high yield varieties, agricultural implements, vegetable production and agricultural production programmes.

In the second part, extension teaching methods including demonstrations, campaigns programme planning, farm planning, methods of survey, preparation of visual aid materials and evaluation of extension programmes have been highlighted.

#### Treatment :

The syllabus is divided into three parts. The first part is subject matter content, the second, extension teaching methods and the third relates to the practical application of the subject matter. The topics specified in the first two parts are introduced through a theoretical frame work to be projected in practical situations which would blend subject matter with extension officers in agricultural production, practicals that are extremely essential have been selected so that these participants not only gain the subject matter content but also have the opportunity of applying this material to realistic situations. In the process of discussions, reviewing and analysis the group would be in a better position to learn and develop skills that are necessary to make them more efficient in their jobs in the field.

The syllabus is broad and comprehensive. It is not possible to cover the entire area specified in the outline due to the limited time available. An opportunity is given to the participants to select specific areas in which they are specially interested after which the final decision is made keeping in view the time available for the various components of the syllabus and its treatment.



**PART I. SUBJECT MATTER OF AGRICULTURE**

1. Need for planning agricultural programmes, Fourth Five Year Plan with special reference to Agriculture.

**SOILS : (2-5)**

2. Collection of soil samples, soil testing and its interpretation.
3. Soil conservation programme—current research and emphasis.
4. Soil reclamation—Alkaline and Saline soils.
5. Role of soil micro-organisms in increasing agricultural production.
6. Fertilizers and their placement—latest technological developments.
7. The Fertilizer Corporation of India—its various activities with special emphasis at the block level.
8. The concept of multiple cropping programme.
9. Seed multiplication and distribution and seed saturation programme—National Seeds Corporation Institutions and Agencies.
10. National Food Corporation—its activities at the Block Level.
11. Water Management—conservation of water—drainage.
12. Minor Irrigation—pumping sets.

**PLANT PROTECTION : (13-15)**

13. Handling care, working and repair of common plant protection equipments.
14. Plant protection, operations and their economics.
15. Precautions to be taken in handling, storage and use of important insecticides and pesticides.

**AGRICULTURAL IMPLEMENTS (16-19)**

16. Operations and maintenance of selected agricultural implements.
17. Power tiller and its working.
18. How to organise a successful implement programme in a block.
19. Use of tractors—comparative study of economics and efficiency.

**HIGH YIELDING VARIETIES OF CROPS : (20-31)**

20. Production of Paddy—Characteristics—soils, seed treatment, nursery sowing.
21. Production of Paddy—Field preparation, fertilizer application, transplanting and intercultural operations.
22. Production of Paddy—Plant protection, harvesting, threshing and economics.
23. Production of Dwarf Wheat—characteristics, soils, seed bed preparation, seed rate and seed treatment and sowing.
24. Production of Dwarf Wheat—fertilizer application, intercultural operations, irrigation and weed Control.
25. Production of Dwarf Wheat—control of pests and diseases harvesting, threshing and economics.
26. Production of hybrid and composite maize—characteristics, soils, seed treatment, seed bed preparation, sowing and fertilizer application.
27. Production of hybrid and composite maize—water management, plant protection, intercultural operations, harvesting, shelling and economics.
28. Production of Hybrid Jowar—characteristics, soils, seed, bed preparation, seed rate, sowing and fertilizer application.  
Production of Hybrid Jowar—plant protection, inter-cultural operations, irrigation, harvesting, threshing and economics.



30. Production of Hybrid Bajra—characteristics, soil, seed bed preparation, seed rate, sowing and fertilizer application.
31. Production of hybrid bajra—plant protection, inter-cultural operations, irrigation, harvesting, threshing and economics.
32. Family size plots for vegetables growing planning and economics.
33. Growing of Kharif vegetables.
34. Growing of Rabi vegetables.

#### AGRICULTURAL PROGRAMMES (35-39)

35. Current problems affecting agricultural production in India.
36. The new strategy of agricultural production in India.
37. High yielding varieties programme in India.
38. I.A.D.P. Objectives, content and progress.
39. Applied Nutrition Programme at the block level.

#### PART II. EXTENSION TEACHING METHODS

1. Principles of Agricultural Extension.
2. Extension teaching methods, individual group and mass contacts.
3. How to conduct method demonstration.
4. How to lay out result demonstration.
5. Group methods in Extension.
6. Importance of campaigns in stepping up Agricultural Production—Organisations and training.
7. Acceptance and rejection of new ideas in agricultural production.
8. Role of A.V. materials — their availability and effective use in agricultural production.
9. Traditional and changing pattern of rural leadership.
10. Role of Agricultural Extension Officers in Agricultural Production (Seminar Topic).
11. Developing extension programmes; purpose and guiding principles.
12. Farm management—making agriculture more profitable.
13. The farm planning process —resources, strong and weak points, improvements introduced, alternatives, plans, comparisons, execution and problems of farm planning, follow up and evaluation.
14. How to prepare agricultural and animal husbandry projects for young farmers.
15. Collection, classification, tabulation, interpretation and reporting of statistical data of agricultural projects.
16. —do—
17. Case study approach.
18. Scheme of farmers training in high yielding varieties programme Districts.
19. Characteristics of farmers as learners.
20. Procedure and method in farmers training—selection of farmers, the syllabus, physical facilities teaching materials—follow-up.
21. Evaluation of Extension Programmes. Blocks, I.A.D.P., H.Y.V.P., V.L.Ws.

#### PART III. PRACTICALS

1. Conducting Farmers' Training.
2. Visual Aids Workshop—posters, charts, flash-cards, flannel graphs, leaflets.
3. Visit to soil testing laboratory, Karnal.
4. Visit to model agricultural farm.
5. Method demonstrations on the campus.



6. Demonstration of improved agricultural implements and machinery.
7. Handling, care, working and repair of common plant protection equipments.
8. Village practicals :
  - (a) Method demonstrations.
  - (b) Result demonstrations.
  - (c) Preparation of crop plan and plan of action.
  - (d) Case studies.
  - (e) Film show and film review.
  - (f) Vegetable programme.
  - (g) Study of Agricultural Projects.
9. Study tour :
  - (a) Visit to an agricultural research farm.
  - (b) Study of High Yielding Varieties Programme.
  - (c) Package programme.
  - (d) Farmers training programme.
10. Institutional seminar-group methods of working and presentation.



## APPENDIX

### TENTATIVE SYLLABUS FOR THE SPECIAL WORKSHOP FOR THE PROJECT HOLDERS OF AFPROs

*Subject :—How to run an Agricultural Extension Programme ?*

#### Objectives :

The short duration workshop is aimed at providing opportunities of learning as well as cooperative investigation in preparing programmes of Extension that are workable and practicable in village conditions. During the period of the workshop the participants will get the necessary back-ground information from resource persons and be involved themselves through village visits to prepare a programme taking into consideration the factors they will observe. It is aimed to make use of the participants' rich and varied experience to plan programmes that could serve as samples for adoption with necessary amendments to local conditions elsewhere in the country.

#### Participants :

The participants for this workshop are mostly private project holders who are responsible for overall management and conducting Extension programmes in their own specific areas. This group is interested in organising Extension programmes not only for their own staff and personnel but also for the village as a whole. Some of the participants for different functions in such programmes. It is assumed that the project holders are not specialists in any particular field but will be incharge of programmes which will require the assistance of specialists. These project holders would like to get an insight into the essential elements of programme planning in selected areas that will be suitable to the local conditions and the village people. It is presumed that the project holders are interested in helping the local villagers to learn more efficient techniques to utilise their land for food production. This will involve demonstrations, working with the farmers, motivating them towards new varieties and new package of practices and helping, if possible, in the supplies of certain factors for agricultural production.

#### Method of approach :

The period of the workshop will be divided into three distinct areas, the first part will consist of the theoretical framework which will help in providing the necessary information through lectures and discussions to plan programmes.

The second part of the workshop will involve resource persons and experts in the field who are at present organising and running Extension programmes of different kinds. By inviting these resource persons the group of participants will have an opportunity to get first hand information of the techniques of the problems involved in conducting such programmes.

The third part of this workshop will consist of the efforts of the participants themselves. The groups will be given an assignment of preparing an Extension programme themselves after paying a series of visits to the selected villages around the Institute. A consultant with necessary data will be available for guidance to the group for the collection of further information and to be of assistance in the preparation of their plans. The work groups will then present their plans to the entire group for analysis and review.

In addition to this, three exposures and a farmer's day will be organised at one of the villages or the Institute itself where the group of participants will be given an opportunity of working out a programme and applying certain parts of it to the group of progressive farmers. Arrangements will be made to lay out demonstrations, hold group discussions and provide exercises for the participants to implement certain facets of an Extension programme.

#### Content and Treatment :

*Tentative Syllabus :* A tentative syllabus has been drawn for the theoretical frame work in four parts which will include topics that are directly connected with Extension programmes. These topics will be taken up for lecture-cum-discussions to throw light on the assignment that will be given to the participants for the preparation of an Extension programme.



## PART I (Theory)

### A. Agricultural Extension :

1. Principles of Agril. Extension.
2. Extension teaching methods.
3. Professional competence of Extension workers.
4. Demonstrations in Agril. Extension.
5. Use of audio-visual aids in Extension teaching.

### B. Extension Programme Planning :

1. Developing Extension programmes; purpose and guiding principles.
2. Elements of problem solving in Extension programmes; the Extension workers, the farmer, technology, communication, service and supply.
3. Village agricultural production plan.
4. Meeting the requirements for technical subject matter; reliability, availability, and applicability (Select a crop).
5. Evaluation of Extension programmes.

### C. Farm Planning :

1. Current problems affecting agricultural production in India.
2. Farm management—making agriculture more profitable.
3. Fundamentals of farm planning.
4. The farm planning process.

### D. Farm Leadership :

1. Leadership—identification—role—importance selection.
2. Characteristics of farmers as adult learners.
3. Motivating the farmer for acceptance of the new farm technology.
4. Farmers training—selection, procedure, methods and follow-up.

## PART II (Selected Programmes in Agricultural Production)

Organizers and Directors of certain selected programmes will be invited to present the structure and methods of approach in the programmes that they are conducting at present. The following are some of the suggestions.

1. New strategy of agricultural production in India.
2. High-yielding varieties programme.
3. Intensive Agricultural Districts Programme.
4. Applied Nutrition programme.
5. Programme for improved agricultural implements.

## PART III (Practical application )

In this part the participants will be directly involved in the preparation of Extension programmes. This will include a series of visits to the selected villages surrounding the Institute to get a picture of the existing situations. The following will be items connected in this portion :—

1. Visits to villages for problem identification.
2. Preparing an Extension programme and plan of action.
3. Laying result demonstrations.
4. Demonstration of Agricultural implements.
5. Farmers field day.

At the end of the seminar, time will be allotted to evaluate the method of approach of this workshop.



## APPENDIX

### OUTLINE OF SYLLABUS

#### Animal Husbandry Extension Officers

The Animal Husbandry extension Officers for the sixth special course organised at this Institute have their academic qualifications as well as the field experiences in the Community Development Blocks. Those who have put in atleast three years service are invited to participate in this course. The outline of the syllabus is given to them in a draft form after having been looked into by the experts of the Ministry of Food and Agriculture and others. The outline contains the objectives and the selected topics under the main disciplines of:—

1. Extension Education process and its role in Community Development.
2. Extension Programme Planning.
3. Extension teaching method and Communication process.
4. Rural Sociology.
5. Agricultural Economics and Farm Planning.
6. Home Science Extension.

The syllabus is formulated with a view to provide an opportunity to the Extension Officer to secure specific skills suitable for field work. The main emphasis is on extension teaching methods.

In order to meet their requirements some selected subject matter topics are also included in the talks. The views of the Extension Officers are taken on the draft syllabus in the beginning of the course and modifications are made after discussion and availability of the time. The special importance is given to such items that are directly related to the problems of the village people.

The emphasis is given on the practical aspects of the subject matter as well as extension methods rather than theoretical orientation. The topics are dealt with in the class room, on the campus and within the villages so that the participants are in a position to obtain integrated understanding of extension methods. The intention is to develop confidence among the participants.

The special areas of subject matter were as follows :—

1. Prevention and control of poultry diseases.
2. Economics of poultry.
3. Cultivation, conservation and utilisation of fodder crops.
4. Recent advances in Animal husbandry.
5. Selection and raising of dairy calves.
6. Artificial insemination.
7. Fisheries.
8. Breeding and systems of breeding.
9. Sire Evaluation.
10. Feeds and fodders of animals.
11. The tentative syllabus is given below.



# SYLLABUS FOR SIX-WEEK SPECIAL COURSE IN EXTENSION METHODS, TEACHING TECHNIQUES AND COMMUNICATION MEDIA TO THE ANIMAL HUSBANDRY EXTENSION OFFICERS AT THE EXTENSION EDUCATION INSTITUTE NILOKHERI (HARYANA)

## Introduction :

From the experience in training personnel for the Community Development Programmes it is felt that it would be very helpful to equip the field workers with practical training on Extension methods. During the training programmes much attention is given to orientation, philosophy and background of subjects connected with Community Development. After the initial training the field workers face many problems in the practical application of the principles they have learnt. In many cases it has been observed that the faith in Extension methods is lacking. Emphasis on Extension methods and techniques with practical application would be very useful. The object of this syllabus is to concentrate attention on developing skills and confidence in Extension Workers by exposing them to a variety of situations.

## Objectives :

1. To help the Extension Officers and field workers gain confidence in the use of Extension methods.
2. To develop skills in certain fundamental areas in the workers.
3. To stimulate interest among the workers by providing them opportunities of self-analysis and group analysis.
4. To help the Extension workers to use Extension methods in practical situations more effectively.
5. To develop a better understanding of Extension methods in practicals and village situations.
6. To identify and evolve effective visual aids suitable for different situations.
7. To develop capacity for analysis and clear thinking.

## Syllabus

### I. Extension Education process and its role in rural Development.

1. Philosophy and principles of Extension—meaning and scope of extension—basic concepts—development of individual and family—Extension is education in action.
2. Professional competence of extension workers.
3. How farmers accept new ideas—principles of diffusion—adoption process, adopter categories—their characteristics—Utility in extension.
4. Meaning of community development—definition, ideology and principles.
5. Objectives and methods of community development—understanding the community—its needs—change in attitudes—self help.
6. Current problems in community development—trends affecting extension service.
7. Critical analysis of community development programme by various bodies—Balwantrai Mehta Committee, United Nations Team, Development Commissioners Conference—Ford Foundation Team and others.

### II. Extension Programme Planning

1. Programme planning—definition—principles and procedure—analysis of the situation—objectives teaching—content and method—evaluation and re-consideration.
2. Village agricultural production plan—collection of data—problems, solutions, plan of work—follow-up evaluation.
3. People's participation in programme planning, ways and means of involving the people.
4. Role of extension workers in Panchayati Raj.
5. Programme Evaluation Organisation—its structure, objectives, methods of evaluation—appraisal of its work.
6. Rural youth clubs. Their role in animal husbandry work.



### III. Extension Teaching Methods and Communication Process :

1. Basic principles of learning and motivation.
2. Adult-learner—characteristics—developmental needs of adults, growth and decline of learning abilities, application in extension.
3. Effective techniques of oral communication.
4. Extension teaching methods, characteristics of extension methods, selection and use.
5. Process of communication in teaching—nature and importance of communication, key-element of communication.
6. Persuasion—definition, nature and methods of persuasion, logical and emotional support.
7. How to conduct method demonstration ? Definition, importance steps and problems.
8. —do—
9. How to conduct result demonstrations ? Meaning significance, steps and limitations.
10. Psychological basis of Audio-visual materials—their role in Communication.
11. Audio-visual materials in extension teaching—significance of audio-visual communication in animal husbandry.
12. Importance of individual contacts and farm visits in communication.
13. How to conduct melas and exhibitions ?
14. How to conduct campaigns?
15. Traditional media of communication, their place in bringing about a change to adopt improved practices in animal husbandry.
16. Various audio-visual materials—their merits and demerits.
17. Meaning and significance of guidance and counselling—basic principles—role of extension officer as a guide.

### IV. Rural Sociology :

1. Rural Sociology its structure and problems.
2. Leadership, its role and importance in Extension Programme.
3. Social Change and the role of Extension Workers.
4. —do—
5. Group mobilisation for Extension Programmes.
6. Case study—meaning and how to write a case study.
7. Evaluation—meaning and methods.
8. Evaluation in Extension process—with reference to supervision.
9. Group methods and their importance in extension teaching process.
10. Large group discussion and small group discussion methods.
11. Panel, symposium, role play, seminar and workshops.
12. How to lead a group discussion ? Role of a leader in Discussion.

### V. Agricultural Economics :

Animal Husbandry programme in the third five year plan and comparative study with 1st and 2nd five year plans.

1. —do—
2. Steps involved in survey work.
3. Methods used in surveys—interview—observation—schedules—questionnaire, etc.
4. Economic Dairy unit—definition, characteristics, weak points etc.

### VI. Home Science :

1. Role of women in animal husbandry.
2. Balanced diet—importance of milk, eggs and meat in balanced diet.
3. What is home science and how can it help in animal husbandry programmes.



## SPECIFIC SKILLS

In formulating—the syllabus and the method of treatment, the main objective of the course is to impart specific skills among the participants for their jobs. Some of the important skills in extension work are as follows :—

**1. How to approach and motivate people :**

- (a) Skill in conducting effective demonstrations.
- (b) Addressing meetings and conducting group discussions among farmers, progressive farmers, local leaders etc.
- (c) The effective use of audio-visual aids.
- (d) Individual contacts and farm visits.

**2. Techniques of bringing about a social change :**

- (a) The process of dissemination of ideas.
- (b) The study of the process of change.

**3. Skill at mass approach :**

- (a) How to conduct melas, exhibitions and dramas etc.
- (b) Propagation of new ideas—publicity.

**4. How to formulate and execute plans.**

- (a) To conduct surveys and analyse situation.
- (b) To prepare plans for animal husbandry programme.

**5. Skill in evaluation :**

- (a) Specific livestock development plan.
- (b) Village level workers performance.

**6. Basic skills :**

- (a) Fodder cultivation.
- (b) Balanced feeding of animals.
- (c) Poultry keeping.
- (d) Common diseases of cattle.



## SYLLABUS FOR VILLAGE ARTISANS COURSE

This is a one year course for the village Artisans. During this period, subject matter knowledge of Agricultural Engineering, Blacksmithy and Carpentry are given, so that they may make any kind of improved implements in their villages. In a day the Artisans are taught one theory period of one hour and next five and half hours of intensive practicals. During the year there are about 5-10 village trips which may range from 15-20 miles away from this Institute. These are educative because they find the ex-artisan trainees working in their own workshops at these villages. Moreover there are two educational tours in a year covering several manufacturers of different states. This kind of tours give them the latest idea of the market which they may make use for themselves. The trainees also go for village practicals in which they work with the farmers, help them in repairing their machines and so on. The detailed syllabus of the subject is given below.

### Agriculture Engineering

#### 1. *Implements :*

Desi Plough, Mould Board Plough, Cultivator, Triphali, Seed Drill, Seed-cum-Fertilizer Drill, Maize Sheller, Winnowing Fan, Bar Harrow, Single Row Cotton Drill, Hand Hoe, Sharma Hoe, Bund Former, Dibbler, Paddy Weeder, Paddy Earthing Machine, Paddy Thresher, Paddy planter, Power tiller with its attachments, Power Paddy thresher, Wheat Thresher, Power Maize Sheller.

#### 2. *Engines and Pumps*

Diesel Engine, Petrol Engine, Vertical Pump, Centrifugal Pump, Tubewell working.

#### 3. *Plant Protection Equipment*

Duster, Sprayer, Power Duster, Power Sprayer, Seed Treating Drum, etc.

#### 4. *Tractor*

Power Tiller, General idea of Tractors, Transmission of Power, Pulleys, Gears, Ropes, Belts, etc.

### Blacksmithy

1. Proper use of common tools, description of hearth, and building fire, use of calliper steel rules, etc. *Forging, Up setting, Jumping, Rivetting, Tempering, Case Hardening, Drawing, Bending, Making Chisel, Punch, Die, Hammer Tong and other Hand Tools, Punching.*

2. *Sheet metal Bending.* Development of Frustum, Funnel, Mug, etc. Bending pipe preparing Bends, seems soldering and brazing.

#### 3. *Welding*

Electric welding, use of electrodes, Butt joint, Lap joint, vertical joint, over Head Welding, Tee Welding, etc.

(b) *Gas Welding,* preparing Acetylene gas, Welding different size of sheets, use of Flux, Brazing Welding copper, Brass and all type of joints.

4. *Fitting job*—Use of Hacksaw, Drills, Drilling machine, Filing practice, Cutting key way, etc.

*Lathe* —Simple turning, Tapper Turning, Thread Cutting Practice, Tapper Boring. Power Machines, Grinder, Drilling Machine, Power Hacksaw, Circular Cutting Machine.

6. *Jobs*—Plough, Paddy weeder, Paddy earthing machine, Dibbler, Wheel Hoe, etc.

### Workshop Practice—Carpentry

Proper use and care of Wood-workers, tools, the names in regional languages, Peculiarities of construction, essential features and advantages, up-keep of the tools, sharpening by grinding, filing and whetting of wood chisels, saws and axes, making different type of joints such as halved—joint, Table Joint, Mortise and tennon joints, Butt joint, lapped joints, shetred and other simple joints, preparation of estimates for small



jobs, use of fixtures such as nails and screws, etc., clamped, ledged and cramping—work, use, care and maintenance of the wood working machines, such as Band Saw Machine, cross cut saw—machine, wood turning lathe, Band saw blade sharpening machine, power grinder and planner etc.

Simple jobs for wood work which can be made by using the tools commonly maintained by the carpenters, practical jobs such as handles of various tools, making of various type plants such as trying planes and Jack planes, Plough Planes, Rebate Planes and Smoothing Planes etc., Preparing Beehive Boxes, Simple housing requirement, trusses, tool boxes, agriculture implements such as Nagpuri Yokes, seed drill boxes, wooden ploughs, wooden Bar Harrows, Hoes and cultivators, Cart Wheels mallets, Bench Hooks, Poultry houses, Dibblers, Stands of the Winnowing Fans, Bund Formers.



## TWO-MONTH REFRESHER COURSE FOR VILLAGE LEVEL WORKERS

The objective of the two months Refresher course is to equip the VLWs with the latest technology and extension techniques, besides, providing them an opportunity for putting forth their problems and deficiencies for finding solutions and overcoming these shortcomings. On their arrival, a tentative syllabus which is broad based is given to the trainees in different small groups. These groups go through the tentative syllabus and keeping in view the short period of 2 months and their needs, they give suggestions and help in finalising the working syllabus for that course.

So far as new technology in different fields is concerned, it is for the staff of the Institute to provide a place for this, in the syllabus. The trainees, generally, are expected to give suggestions in respect of their day to day problems in their working areas, deficiencies in subject matter as well as in teaching techniques, the needs, of their areas and their special interests in their working spheres.

The syllabus thus finalized is treated by a variety of methods which include talks on new subject matter areas, discussions where the trainees have some knowledge, but it is desired to exchange experiences and have varieties of comments in different working areas. Demonstrations are also presented by the staff as well as by the trainees to provide them an opportunity to improve their skills. The trainees also select topics of their interest and after full preparation, present these topics to the class. Seminars on topics of general interest are also organised keeping in view the syllabus and the need of the trainees in their field. Field trips and study tours are also organised to give an opportunity to the trainees to learn new things at research farms, model farms and at other places where agricultural development work is taken up on an intensive scale. Trainees are also taken to the villages for a week where they try their techniques and new knowledge learnt. In this the trainees not only rehearse to provide assistance to the needy farmers but give new technology in the field of agriculture. In the villages, besides general survey and case studies, farm plans and demonstrations are also conducted. Most of the topics of the interests of the trainees are covered by them in the Library as required assignments.

The syllabus on the subsequent pages is covered by the different methods by the staff and the trainees. Regular evaluation at intervals in different subjects is done to keep interest of the trainees in the course.

---



## SYLLABUS FOR TWO-MONTH REFRESHER COURSE OF VLWs.

### I. Community Development and General

1. Community Development, meaning and scope, aims and objectives, progress made and different programmes.
2. New strategy of agricultural production in India.
3. Package programme. (I.A.D.P.)
4. Intensive Agricultural Area Programme.
5. Role of V.L.W. in Community Development and especially in increasing food production.
6. Crop campaigns.

### II. Extension Education :

1. *Programme Planning.*
  - (a) Its needs, techniques and principles.
  - (b) Preparation of village development Plan and Agricultural Plan.
  - (c) Effective involvement of people for the planning and execution of the programmes.
2. *Extension Philosophy and its Principles.*
  - (a) Extension teaching methods.
  - (b) Adoption process.
  - (c) Rural Youth Programme.
  - (d) Role of model farm in Agricultural Production.
  - (e) How to work with groups.
  - (f) Selection, preparation and utilization of Audio Visual aids.
  - (g) Procedure and method in farmers training.
  - (h) Developing leadership in villages.
  - (i) Role of non-official agencies in Agricultural Extension.

### III. Soils :

1. Soil sampling, interpretation and analysis of results.
2. Soil erosion, conservation and dry farming.
3. Land reclamation :
  - (a) Alkali soils.
  - (b) Acid soils.
  - (c) Water logging and drainage.
4. Tillage and tillage operations.

### IV. Manures and Fertilizers :

1. Soil fertility and soil productivity.
2. Organic manures—ingredients, doses, preparation, application, method of application and economics.
3. Inorganic manures—ingredients, doses, time of application, method of application and economics.
4. Minor elements—their role in nutrition, their definition and proper application.

### V. Improved Implements and Equipments :

1. Importance of improved agricultural implements in increasing agricultural production.
2. Ploughs—their operations, economics and availability.
3. Hoes, harrows and cultivators.
4. Reaping and threshing implements.



5. Plant protection equipments :
  - (a) Sprayers.
  - (b) Dusters.
6. Pumping sets.
7. Power tillers.

#### VI. Irrigation :

1. Methods and practices for water conservation.
2. Water requirements of different crops.
3. Avoidance of water losses and adverse effect of over irrigation.

#### VII. Crop Husbandry :

1. Good seed, selection, drawing, seed samples for testing, conducting germination test.
2. Improved varieties of different crops.
3. High yielding varieties of different crops *i.e.* wheat, paddy, maize, jowar and bajra.
4. Package of practices in :
  - (a) Wheat
  - (b) Sugarcane
  - (c) Pea
  - (d) Cotton
  - (e) Potato
  - (f) Groundnut.
  - (g) Paddy
  - (h) Hybrid Napier.
5. Crop rotation.
6. Mixed cropping.
7. Multiple cropping Programme.
8. Economic fodders and their cultivation.

#### VIII. Farm Management :

1. Crop plans, farm planning and partial budgeting.
2. Land classification according to use.
3. Complementary supplementary enterprises.
4. Mixed cropping.

#### IX. Horticulture :

1. Fundamentals of vegetables cultivation and its economics in comparison to crops.
2. Nursery growing for vegetables.
3. Package of practices for Rabi vegetables.
4. Package of practices for summer and kharif vegetables.
5. Kitchen garden—lay out and plan.
6. Seed production and agencies for obtaining seed.

##### B. Fruits :

1. Layout of orchards.
2. Economics of orchard vis-a-vis crop and vegetable growing.
3. Rejuvenation of old orchards.
4. Raising and care of fruit nurseries.
5. Cultivation of important fruit trees like Mango, Guava, papaya, peach, plum, near and citrus.
6. Importance of vegetables and fruits in applied nutrition programme.
7. Community plantation viz. orchards, village afforestation, Vana Mahotsava.
8. Different propagation techniques in fruits.



**X. Plant Protection :**

1. Importance of plant protection in increasing food production and general principles involved in plant protection.
2. Weeds and their control —important weedicides and their uses.
3. Diseases and their control :
  - (a) In fruit trees,
  - (b) In Vegetables,
  - (c) In crops.
4. Insect pests and their control :
  - (a) In fruit trees,
  - (b) In vegetables.
  - (c) In crops.
5. Role of seed treatment and soil treatment in control of insects and diseases.
6. General precautions in use of these chemicals, storage and application of correct doses.
7. Storage methods to prevent insect damage.
8. Proper methods of preparation and application of weedicides, pesticides, insecticides, fungicides.
9. Organising campaigns to control locust, grass hoppers rats, weeds, like pohli and smut in wheat, jowar and bajra.
10. Role of official and non-official agencies in plant protection, assistance given by the Department.

**XI. Animal Husbandry :**

1. Importance of livestock in Agricultural production—cattle, management, feeding and breeding.
2. Key village scheme—its functioning and role of extension worker in this scheme.
3. Dairy extension.
4. Important diseases in cattle—their symptoms, preventive measures and their curative measures.
5. Practical skill in administration of drugs, drenching, anaemia, bandages, temperature taking.
6. Protecting livestock against contagious diseases, and mounting campaign to check the spread of diseases, role of Village Level Worker.
7. Poultry as a subsidiary industry. Its management and economics. Protection of birds from diseases like Ranikhet etc.
8. Fish cultivation in village ponds, types of fishes, their breeding, management, feeding and disposal.
9. Piggery.
10. Duckery.
11. Sheep and goat rearing.

**XII. Cooperation :**

1. Cooperation as a means of rural development. Its place in community development programme particularly in relation to agricultural production.
2. Service cooperatives, its functioning and relationship with marketing society and central bank.
3. Cooperative farming—principles, types, importance in increasing agricultural production.
4. Marketing society—their function and advantage.
5. Role of V.L.W. in cooperation to foster and assist cooperative societies particularly at the time of their formation, to create favourable climate for cooperation.
6. Warehousing facilities—advantages—how to make full benefit from it.

**XIII. Panchayats and Panchayati Raj**

1. Principles, philosophy and role of panchayats and panchayati raj in community development.
2. Role of panchayat in increasing agricultural production and making economic conditions of village better.
3. Resources of Panchayat—means and methods of augmenting the same and utilization of these resources towards production and welfare programme.



#### XIV. Public Health :

1. Balanced diet, its importance and effective use of local foods.
2. Applied nutrition programme.
3. Family planning—role of extension agency.

#### XV. Rural Industry :

1. Problems of under and un-employment in villages and role of Village Level Workers in solving this problem.
2. Industries that can be taken up in villages and their economics.
3. Aids and grants through Commissions, Boards and Government.



## FOOD DEMONSTRATORS COURSE

### SYLLABUS

The special course for food demonstrators was planned in advance along with the Specialists of the F.A.O. and technical staff of the Food Department. It was decided at the outset to provide this group opportunities for training in Extension and interviewing for a period of one month. This training was to be organized after the technical training has been given to the group elsewhere. It was not possible to organise a course of one month for this group. As such specific items from the syllabus have been selected according to the requirements of the group. A tentative syllabus was drawn up in consultation with the technical staff to develop skills of demonstrations, interviewing, survey and group work.

The tentative syllabus covers very broadly the items connected with the required skills for the food demonstrators. In the treatment of the syllabus major attention was given to the practical aspect. In the theoretical frame-work an attempt was made to acquaint the group with the Principles and philosophy of Extension, Extension teaching methods etc. After covering this portion through lectures and discussions, exercises, to provide practical experience in the above areas were designed for individual and group assignments.

As the period was short it was not possible to cover an extensive area in Extension. Emphasis was given to bare minimum that is required for these food demonstrators.

---



## TENTATIVE SYLLABUS

1. *Introduction to Subsidiary Food.*
    - (a) Programmes of our section.
    - (b) Duties and responsibilities of demonstrators.
    - (c) Introduction to each others.
    - (d) Questions
  2. *What is extension ?*
    - (a) Meaning of the term.
    - (b) Underlying Philosophy.
  3. *Concepts of teaching and learning.*
    - (a) Formal and informal teaching.
    - (b) Conditions for effective learning.
    - (c) Difference between education and publicity.
  4. *Extension methods.*
    - (a) Interviewing.
    - (b) Group work.
    - (c) Demonstrations.
  5. *Programme planning and Implementation.*
    - (a) Steps involved in programme planning.
    - (b) Collection of facts.
    - (c) Analysis of information collected.
    - (d) Objectives of the programme.
    - (e) Planning to achieve the objectives.
    - (f) Execution of the plan.
    - (g) Evaluation.
  6. *Teaching aids.*
    - (a) Types of teaching aids.
    - (b) How best they are used.
    - (c) What aids are needed for the specific objective.
  7. *Preparation of reports.*
    - (a) Writing of concise reports which give a clear picture of the programme.
  8. *Kitchen garden as a project for village ladies.*
  9. *Practical extension work.*
    - (a) Evaluation of impact of applied, nutrition programme in a village ; or
    - (b) Fact finding regarding Food Habits.
-



## TEACHING STAFF

### **Dr. Herbert W. Butt—Principal :**

M.S. in Agricultural Economics from the University of Tennessee—Ph. D. in Public Administration with Agricultural Extension and Rural Sociology from Cornell University. Belongs to the Andhra Pradesh Civil Service where he had worked since 1945 in various capacities in the Revenue and the Development and Planning Departments. Was Officer Incharge of the All India Work Seminar on Extension Education at Hyderabad, 1959. Did specialized research on the selective participation of farmers and their wives in rural organisations (results published in Bulletin No. 257 of the University of Tennessee Agricultural Experiment Station, 1957). Examiner for M. Sc & Ph. D. in Extension Education. Member, Board of studies, Home Science Extension, M.S. University Baroda. Delegate from Government of India to the International Seminar on Extension Training held at West Germany, 1964. Have been associated with this Institute since its inception in early, 1959.

### **Shri Badri Singh—Vice Principal :**

M.A. in Economics and M.Sc (Ag.) in Agronomy from the Agra University. Worked as Lecturer and Assistant Professor of Rural Economics at the Agricultural College, Kanpur from July 1943 to April, 1960. Served as Examiner for graduates and post-graduate students at several Universities. Directed field research work. Joined this Institute as Lecturer in Agricultural Economics and Farm Planning on 11.4.1960 and became Vice-Principal on 9.11.1960.

Deputed under U.S.A.I.D. Programme to U.S.A. in 1962-63 when he completed his M.S. in Extension Education and also participated in July-August, 1962 in an International Training Seminar on Extension Methods and Home Economics organised by F.A.O. in Holland.

From November, 1966 to September 1967, he was Joint Director, Extension Training in a temporary capacity in the Directorate of Extension, New Delhi.

### **Sh. C.L. Gupta—Lecturer in Audio-visual Aids**

M.Sc. Chemistry and B.Ed. with Audio-visual Education from the Delhi University. M.A. in Hindi from the Punjab University. M.S. (Extension Education) with specialization on Communication and Journalism at the University of Missouri, Columbia U.S.A.I.D. Programme. Served as Lecturer in Science in the Khalsa Teachers Training College, Amritsar. Worked as Assistant Education Officer in the Ministry of Education, Government of India, New Delhi. Joined this Institute on 6.8.1959.

Attended a course on Audio-visual education at the National Institute of Audio-visual Education, New Delhi. Participated in an International Training Seminar on Extension Methods and Home Economics organized by F.A.O. at Wageningen, The Netherlands in July-August, 1963.

### **Sh. R.D. Kaushik—Superintendent, R.T.U.**

B.Sc. Agriculture from the University of Agra and Associate of the Indian Agricultural Research Institute (Agronomy); M.S. (Extension Education) U.S.A. Since 1951 has worked in turn as Senior Research Assistant in Pusa, Bihar; Indian Council Agricultural Research, New Delhi; and the Directorate of Extension. Joined this Institute on 17.8.1960 as Instructor in Agriculture and later as Superintendent, Refresher Training Unit for the past 4 years.

Deputed under U.S.A.I.D. Programme to U.S.A. in 1962-63 when he completed his M.S. in Extension Education and also participated in an International Training Seminar on Extension Methods and Home Economics organised by F.A.O. in Holland in July-August, 1962.

### **Sh. T.M. Dak—Lecturer in Rural Sociology**

M.A. (Sociology) from Rajasthan University in 1959; associated with the post graduate department of sociology at D.A.V. College, Ajmer, 1959-60. Senior Instructor in Rural Sociology at Vidya Bhawan, Social Education Organisers' Training Centre from May, 1961 to February, 1966.



Participated in 4½ months' courses on Inter-disciplinary approach to Community Development at National Institute of Community Development, 1963.

Lecturer in Rural Sociology at the Extension Education Institute, Nilokheri since February, 1966.

**Shri Baldev Singh—Instructor in Agriculture :**

After doing B.Sc. (Hons) Ag. joined Development Department in August, 1951. He has been actively associated with the Community Development Programme since its inception and had 10 years practical experience of working as Extension Officer (Ag.) and Block Development Officer. In March, 1961 joined the Directorate of Extension, Ministry of Food & Agriculture as Assistant Extension Officer. In 1962 for few months he worked as Instructor in Agriculture at this Institute. In July, 1964 he was deputed for higher training to U.S.A. at the University of Missouri—Columbia where he registered for M.S. Course in Extension Education. In November, 1965 joined this Institute on the present post.

**Shri A.K. Chakravarty—Chief Instructor:**

B.Sc. Ag. Engg. M.I.S.A.E. two years experience on Tractors and Farm machinery as Training Assistant at Tractor Trg & Testing Station Budni, Bhopal. Two years experience at Extension Education Institute in teaching and design work of Agricultural Implements.

**Shri H.C. Luthra—Design Engineer**

B.Sc. Agricultural Engineering; three years of experience in Extension work of Agricultural Implement. Four years of experience in Research, Testing & Design of Agricultural Implements.





En-94.