

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

INTRODUCTION

As discussed in chapter three, the present problems in training programs conducted by the In-service Training Institutes (ISTIs) of the Department of Agriculture (DOA) have emerged because of the way in which the training model has been implemented. The Training Institutes and trainers are frequently criticised for the training they provide, and trainers are being encouraged, even pressurised, into making changes. Most trainers would accept that there must be innovation of some kind because we live in a changing society. The tremendous increase in knowledge means that there has to be an even greater selection of what is to be learned, as well as a reconsideration of how learning should take place.

Therefore trainers of the ISTIs need to establish very clearly what they are trying to achieve with their learners, then decide how they hope to do this, and finally to consider to what extent they have been successful in their attempt. It is clear that these problems could be overcome by implementing the training model according to adult learning principles, as discussed in chapter four.

RECOMMENDATIONS

The following recommendations have emerged from the findings of the present research study. If adopted, these recommendations would strengthen the effectiveness of the training programs conducted by the In Service Training Institutes of the Department of Agriculture.

1. Improve training needs identification and setting objectives

According to the research findings, motivation for adult learning tends to focus on the problems, concerns, tasks and needs of the individual's current life situation. Also the research study revealed that the learner's involvement in the planning process is a widely accepted principle in program planning.

It is suggested to include an opportunity for learners to assess their own needs with the guidance of the trainers. But at present, the trainers' involvement with work organisations or learners is not sufficient. The training institute cannot remain content only with the training programs. It has to get involved increasingly in organisational

objectives and problems. Therefore, trainers of the ISTIs must go out in to the field in order to be involved with officers, and to be aware of current field problems and training needs. To implement this, it is suggested that trainers allocate one third of their time for field visits, one -third for training activities, and the balance of one-third for their own development and research work.

Such a process would include such things as team building, decision making, improving general culture of the organisation, and changing the attitudes of the people, so that they would be able to build mutuality and involve more people in solving the problems and identifying their training needs. This involvement would also help the training institute to get more experience related to field problems, learners characteristics, their interests and collect new training material in order to become more effective.

Most ISTIs invite officers from other divisions to attend lectures and discussions, but this involvement may not be sufficient. They have to be involved in the planning and preparation phase of the training model. Instead of involving them only in delivering a lecture or a series of lectures, they may be invited to help design various inputs. The training institute should provide the necessary and guidance for this purpose. More thorough preparation should lead to more effective training. For example, the training institute may have to involve these officers in discussing the objectives of the training programs, the training syllabus, details of pre-training and post- training requirements.

2. Train the trainers in adult education theory and practice

The study revealed that the problems pertaining to the ineffectiveness and inadequacy of the training programs conducted by the ISTIs are mainly due to the lack of knowledge and skills of the trainers in adult education. To overcome this problem, the following recommendation could be made on the basis of the findings of the study:

Since most of the trainers who belong to the ISTIs are not exposed to training programs in adult education, training programs in adult education should be organised immediately. The most significant process would be the changing of trainers' negative attitudes to make them realise that the learners are the most valuable and responsible persons in the adult learning process.

It is also recommended that a workshop be organised for senior management officers to help them change their apparently negative attitudes to adult learning. While helping to changing the negative attitudes of the trainers and the management officers, these training programs and workshops will enhance their knowledge and skills in adult education practices.

3. Enhance learners' motivation

It is important that learners come psychologically prepared to benefit from the training program, and then contribute to its proper development. For strengthening both the training institute and work organisations, attention should be paid to the following areas:

a) Plan training programs co-operatively

Before starting the training program, it is necessary to be clear about what the training program is for. The goals need to be set by the organisation, and the training institute should have to play a role in helping the work organisation to look at these goals or objectives. The work organisation should be clear about the objectives, for which the training is being planned or used.

On its part, the training should help to examine how realistic the objectives are, and it can raise questions about some other dimensions of the objectives which might have been overlooked by the work organisations. It would be useful to have groups in which both the representatives of the work organisation and the training institute are involved, and finalise these for the purpose of translating them into training needs.

b) Create training motivation

The second dimension of enhancing motivation concerns ensuring pre-training motivation of participants. Several methods could be recommended for this purpose.

Pre training preparation leading to greater motivation of the participants, may also involve collecting data which can be used during the training program. This can be done through surveys on the problems the participants are facing in their work role. The surveys may also include specific individual problems on which work may be

done. participants may like to express their desire to learn specific things. Such surveys are helpful in making the training institutes aware of expectations of the participants. The training institutes can take steps not only in getting expectations from participants, but may also communicate the expectation of the training institute from the participants during the training programs.

More systematic attention need to be paid to the post training dimension. Towards the end of the training program the training institute needs to ensure that the participants after their return to their work roles will properly use the training they received. The last part of the training should be focussed on such a transition. The participants after return to their workplace need to be provided with the necessary support to utilise their training effectively.

POSSIBLE PROBLEMS AND LIMITATIONS

Although trainers of the ISTIs could strengthen the effectiveness of the present training by adopting adult learning principles, several constraints would limit implementation of an ambitious plan in to effective action. The following problems and limitations could be confronted when trainers of the ISTIs implement the training model according to the adult learning principles identified earlier in this study.

(i) Lack of co-ordination between ISTIs and other divisions of the DOA

As discussed in chapter 3, there are eight In Service Training Institutes in the DOA. But the co-ordination between these institutes and other divisions is very weak. Each institute and division is trying to build up its own territory. Especially the linkage among the three main divisions: research, extension, and human resources development is not up to the expected level. Because of this, there is a problem in identifying the training needs of the extension officers. Most of the extension officers have a negative attitude towards the trainers: they do not think of the trainers as facilitators or helpers; they think that the trainers always criticise their work. Due to the lack of co-ordination, there is no systematic way of judging the effectiveness of training at the field level, either by the trainer or by the trainee; there is no regular feedback from the extension officers.

(ii) Inadequate number of training staff

Although there are eight ISTIs, these institutes are very short of training staff. The present number of trainers at each ISTI is inadequate to handle the large number of training areas introduced into ISTIs with the decentralisation based on agro-ecological regions. Most of the trainers have to handle more than one technical subject so their workload is very heavy. Due to this heavy workload, trainers are confined to the training institutes, and they have very little opportunity to visit the field.

(iii) Not enough care and attention given to selection of trainees

The basis of selection of officers for in-service training is not clear. Usually, when people in other divisions (work organisations) come to know about a training program, they depute some officers whom they think need training. Criteria for selection are often vague and imprecise, and information on trainees, and about their specific needs and interests, is usually insufficient to design programs.

(iv) Negative attitude of the trainers towards adult learning

In the training situation, the trainer must be willing and able to learn about the learners so that he can respond as an individual trainer. Trainers have an attitude of knowing a lot about a subject is enough to teach it effectively. Another reason related to this is the conservative attitude of some senior management officers of the DOA. They also think that the principles and techniques used in the education of children would be equally effective in helping adults to learn. People were therefore recruited direct from universities and institutes without their being given any training in adult education.

So, while they have extensive backgrounds in the subject area, they lack knowledge and skills in management and training functions especially relevant to adults. Often they learn the training component through on-the-job experience and personal learning activities. They have not been exposed to any adult training methodology or

management courses. Therefore, they have a negative attitude towards adult education, and work on their own without considering adult learning principles.

(v) Inadequate financial support for training

Unfortunately in the present situation training is given low priority because its potential benefits are not understood. Therefore, the capital and recurrent funds allocated to the training institutes are very low. This may have a direct impact on the preparation of training materials and selection of training methods, and in turn affect the teaching-learning environment.

ADDITIONAL RECOMMENDATIONS

4. Decentralise present training programs

Instead of having a number of training programs in each ISTI, it would be better to decentralise them according to the agro-ecological conditions and resources available. Consequently, each ISTI would have few specialised training programs which could be handled by the limited number of training staff.

5. Involve trainers from other divisions

Well trained and enthusiastic resource personnel are essential to implement the training model by adopting adult learning principles. Since the existing training staff is not sufficient, it is recommended that trainers be recruited from other divisions of the DOA. This can be done by deputing some officers to join the training institutes as regular members. This may help to refresh the training from time to time. Occasionally, the ISTIs have such an arrangement, but this could be implemented through university departments and other institutes by inviting qualified people to spend some time to contribute to an understanding of the problems, and to become directly involved in some aspects of the training.

6. Select participants carefully

There is a need to develop a better system for the identification of officers for in-service training. More attention should be paid to questions such as: who are the critical role occupants to benefit from the training? Who would be trained subsequently to make training effective? Selection should also be concerned with the method of selecting people. For example, different motivations may be generated in nomination to training as against volunteering for training. Even if officers are motivated for training, some means may be found to help them volunteer and, when they are sent for training, to express difficulties they envisage. Helping people to understand that are going for their own benefit, and that the organisation expects them to use the training effectively, may help the participants benefit from the training

program. The work organisation should work with the training institute in deciding such a strategy. A total strategy of training various people at various levels in the organisation needs to be prepared in advance with the help of the training institute. Whatever the system developed for this purpose, proper records should be maintained at district and institute level.

CONCLUSION

The purpose of this study was examine the present situation of the training programs conducted by the ISTIs of the DOA, in order to identify implementation problems of the training model and make recommendations for thereby strengthening the in service training programs. To accomplish this the study compared the present basis of the training process with the principles of adult learning and tried to find out how these principles are evident in the implementation of the present training model.

This research study revealed that the knowledge and understanding of learning principles are basic to making decisions and using appropriate instructional strategies and techniques. Some understanding by the trainer of the conditions that stimulate learning and how learning takes place is essential if instruction is to result in a high level of competence being achieved by those who are taught. Trainers who are familiar with and understand the basic tenets of how adults learn have the capacity to create innovative teaching techniques and use instructional media that are most appropriate to achieve the learning outcomes sought.

Fundamental to what is being discussed through this study is the indispensable and direct connection between the practice of training and the principles of adult learning. So the study is undergirded by the basic premise that a trainer's behaviour in planning, preparation and presentation of instruction must be grounded firmly in what is known about how adults learn.

It is hoped that the recommendations of this study will help in the strengthening of the training model currently used by the In Service Training Institutes in order to make future education programs more successful in increasing the level of knowledge and skills of the adult learners. In this way the recommendations of this study should help in strengthening of training extension staff in Sri Lanka, the improving of the Sri Lankan agriculture, and also have possible implications for training agricultural extension officers in other developing countries.

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APPENDICES

TRAINING PROGRAMS AVAILABLE AT ISTIs

Title of Programs	Duration (wk)	Name of Training Institute				
		GN	MI	AW	BW	BA
Paddy Cultivation	1-4	*	*	*	*	-
Vegetable Cultivation	1	*	*	*	*	*
Roots & Tuber Crops	1	*	-	-	*	-
Floriculture	1	*	-	-	-	-
Landscaping	1	*	-	-	-	-
Plant Protection	1	*	*	-	*	*
Soil conservation	1	*	*	*	-	-
Water Management	2	*	*	*	-	-
Fruit Cultivation	1	*	*	-	*	*
Seed Production	1	*	*	-	-	*
General agriculture	1	*	*	*	*	*
Mushroom Cultivation	1	*	*	-	*	*
Homestead Development	1	*	*	*	*	*
Bee Keeping	2	*	*	-	-	*
Integrated Pest Management	1	*	*	*	*	-
Post Harvest Technology	1	*	*	*	*	*
Food Preservation	1	*	*	*	*	*
Extension Education	1	*	*	*	*	*
Project Planning	1	*	-	-	-	*
Training of Trainers	1	*	*	*	*	-
Computer Training	1	*	-	-	-	-
Human Nutrition	1	*	-	-	-	-
Home Management	1	*	-	-	-	-
Other Field crops Production	1	-	*	*	-	-
Organic Farming	1	*	*	-	-	*
Pre-Seasonal Training	1	*	*	*	*	*

GN - Gannoruwa

BW - Bombuwela

MI - Maha Illuppallama

BA - Bandarawela

AW - Aralaganwila

Appendix 1

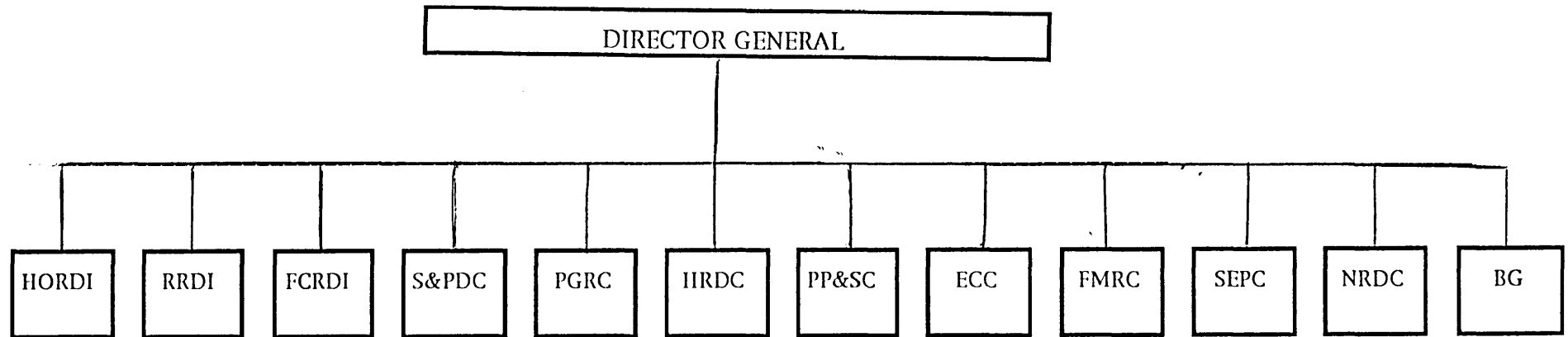
OFFICERS TRAINED AT ISTIs FROM 1990 -1995

INSTITUTE	1990		1991		1992		1993		1994		1995	
	No	M.D	No	M.D	No	M.D	No	M.D	No	M.D	No	M.D
GANNORUWA	1415	6125	1563	7253	1730	8306	1900	8563	2300	9014	2800	9760
B'WEWA	985	5255	1210	5826	1535	7123	1640	8156	2125	8932	2435	9320
BOBUWELA	825	2340	960	2560	1430	4350	1650	5865	1890	6310	2015	7865
A'GANWILA	975	2285	1235	3158	1765	4874	2436	5437	2345	5126	2508	5432
M.I	1438	5438	1245	4876	1867	7568	2040	8349	2464	9135	2682	9426
A'PELESSA	835	2546	1042	2976	1548	4186	2146	5437	2045	5564	2346	6216
TOTAL	6470	23969	7255	26649	9905	28387	11812	41807	13164	44081	14786	48029

No - Number

M.D - Man Days

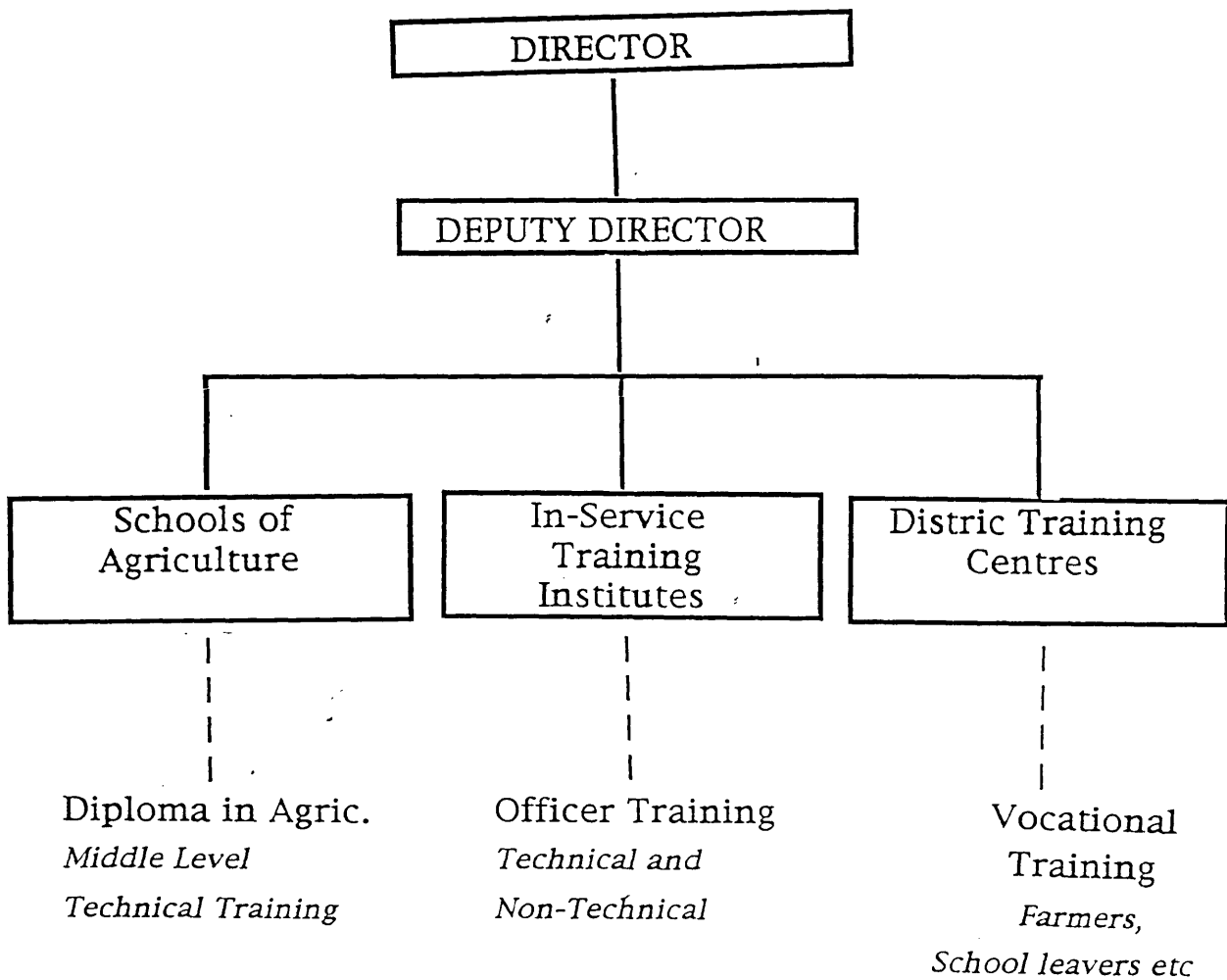
ORGANISATION CHART
DEPARTMENT OF AGRICULTURE
SRI LANKA



HORDI - Horticultural Research Institute
 RRD - Rice research and Development Institute
 FCRDI - Field Crops Research and Development Institute
 S&PDC - Seed and Planting Material Development Centre
 PGRC - Plant Genetic Resource Centre
 HRDC - Human Resources Development Centre

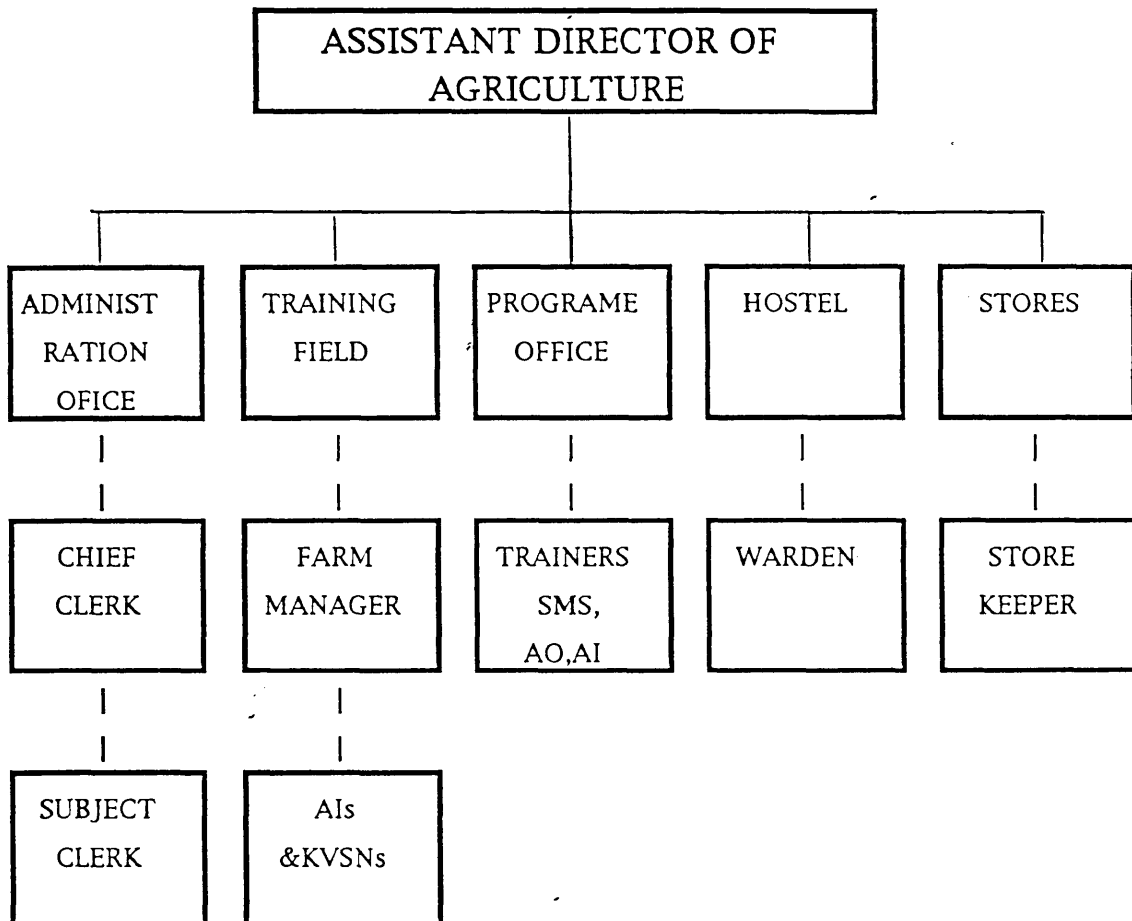
ECC - Extension and Communication Centre
 FMRC - Farm Mechanisation Research Centre
 SEPC - Socio_Economic and Planning Centre
 NRDC - Natural Resources Development Centre
 BG - Botanic Gardens
 PP&SC- Plant Protection and Development Centre

ORGANISATION CHART
HUMAN RESOURCES DEVELOPMENT CENTRE
DEPARTMENT OF AGRICULTURE



ORGANISATION CHART

IN-SERVICE TRAINING TRAINING INSTITUTE



SMS - Subject Matter Specialist

AO - Agriculture Officer

AI - Agriculture Instructor

KVSN - Krushikarma Viyapthi Seva Niladari

TRAINING PROGRAMS CONDUCTED AT ISTI GANNORUWA

1st QUARTER 1995

DURATION (Days)	TITLE OF COURSE	No. OF PROGRAMS	TRAINEES	No.
4	Module Preparation	1	Trainers	10
5	Extension Methods	1	Extension officers	25
2	Stores Management	2	Store keepers	70
5	Office Management	1	Clerks	35
3	Mushroom production	1	Agriculture Instructors	25
5	Preservation of Fruits	1	Agriculture Instructors	25
3	Computer Training	1	DOA Staff	30
5	Audio Visual Production	1	Extension Officers	20
5	Soil conservation	1	Agriculture Instructors	25
5	Bee keeping	3	Agriculture Instructors	75
3	Biometry	1	Research Officers	30
5	Seed paddy production	1	Extension Officers	30
5	Food preparation	1	Extension Officers	25
5	Paddy cultivation	1	DOA Staff	25
3	Pre seasonal training	4	Extension Officers	135
1	R.T.W.G Meeting	1	DOA Staff	60
5	Landscaping	1	DOA Staff	30
3	Training on Pesticide act.	1	Extension Officers	25
TOTAL				
		24	700	

Appendix 6

SUMMARY OF THE TRAINING PROGRAMS CONDUCTED AT

ISTI GANNORUWA - 1'ST QUARTER 1995

CATEGORY OF TRAINING PROGRAMS	No. OF TRAINING PROGRAMS	No. OF TRAINEES	No. OF MANDAYS
SUBJECT MATTER TRAINING	18	425	1850
PROBLEM ORIENTED TRAINING	04	130	650
MANAGEMENT TRAINING	04	140	280
SEMINARS, WORKSHOPS	02	70	100
TOTAL	28	765	2880

Appendix 7

Lesson Plan

Title of lesson: Safe handling of pesticides by the customer

Objective: Advise customers in safety precautions in respect of transporting pesticides from the store to the farm and storage of pesticides at the farm

Teaching method: Lecture, Q & A, demonstration

Location: Class room

Duration: 1/2 hour

Teaching aids needed: Handout, packing material (wrapping), samples of pesticides

Content	time	teaching aids	class activity
<u>Introduction:</u> Pesticides are hazardous <u>Justification:</u> Careless handling could cause major damage <u>Range:</u> Basic principles <u>Main teaching points:</u>	5 min.		lecture
1. Demonstrate proper wrapping technique of pesticides purchased in the shop	20 min.	wrapping material	demonstration
2. Breakage of container during transport could result in major damage: - health hazards to the consumer and others - environmental damage - financial loss	25 min.	handout	lecture Q & A
3. Basic rules for storage of pesticides at home, away from food, children, in well marked bottles or packages. Possibility of mistaken identity should be eliminated. Give examples of accidents.	30 min.	"	"