

**EFFECTIVENESS OF AGRICLINICS AND
AGRIBUSINESS TRAINING PROGRAMME
IN KERALA**

**By
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THESIS

**Submitted in partial fulfilment of the
requirement for the degree of**

Master of Science in Agriculture

**Faculty of Agriculture
Kerala Agricultural University**

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VELLANIKKARA, THRISSUR - 680 656
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2004

DECLARATION

I hereby declare that the thesis entitled “**Effectiveness of agriclinics and agribusiness training programme in Kerala**” is a bonafide record of research work done by me during the course of research and the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title of any other university or society.

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CERTIFICATE

Certified that the thesis entitled “**Effectiveness of agriclinics and agribusiness training programme in Kerala**” is a record of research work done independently by **Miss.S.Parimaladevi** under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, associateship or fellowship to her.

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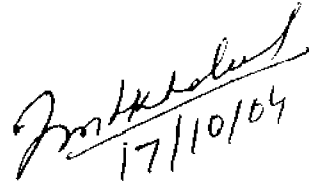
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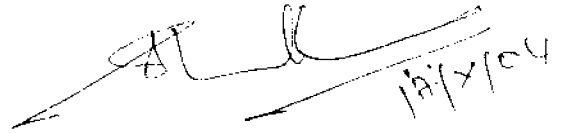
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Acknowledgement

*I bow to the lotus feet of **Almighty** whose grace had endowed me the inner strength and confidence and blessed me with a helping hand at each step during the long sojourn at Kerala.*

*I have great pleasure to place on record my profound sense of gratitude and indebtedness to **Mr. A. Sakeer Husain**, Assistant Professor, College of Cooperation, Banking and Management, Kerala Agricultural University and Chairperson of advisory committee for his meticulous guidance, utmost sense of patience, everwilling help and encouragement through out the course of the study and preparation of the thesis. I am really grateful for the keen interest taken by him in the prompt correction of the manuscript which has helped a lot in the timely submission of the thesis. I feel lucky to be guided by him.*

*I am thankful to **Dr. F.M.H. Khaleel**, Associate Professor and Head, Department of Agricultural Extension and member of my advisory committee for his generous help and co-operation rendered to me during the period of my study.*

*I express my deepest respect, gratitude and indebtedness to **Dr.S.Bhaskaran**, Associate Professor and Head, Central Training Institute and member of my advisory committee for his kind concern, ever willing help, expert advice, sharp and constructive criticisms, continuous support and painstaking scrutiny of the manuscript during the course of my study without which it would have been difficult on my part to prepare this thesis.*

*It is my pleasant privilege to acknowledge, **Mr. M.V. Sudeesh**, Assistant Professor, Department of Agricultural meteorology and member of my*

advisory committee for his valuable suggestions and relentless support through out the endeavour.

*I also express my thanks to **Dr. Joy Mathew, Dr. P. Ahamed,** Associate Professors and **Dr. Jayashree Krishnakutty,** Assistant Professor, Dept. of Agricultural Extension, College Of Horticulture for their kind co-operation and guidance during the entire period of my study.*

*I also avail this opportunity to pay my sincere obligations and heartfelt thanks to **Dr. Alexander George,** Assistant Professor, Central Training Institute and **Mr. Israel Thomas,** Assistant Professor, Central Training Institute and other non teaching staffs of Central Training Institute, Mannuthy for their kind help, co-operation and facilities rendered at the crucial times of the study for the successful completion of research work.*

*I would like to place on record my heartfelt thanks to all the **Teachers** of College of Co-operation, Banking and Management for their help through out the study.*

*I extend my special thanks to all my senior friends **Kamalakaran, Sajin, Parvathy, Swapna, Divya chechi, Allen, Sherin, Sudheer Babu, Roy chettan** and junior friend **Simi** for their help and support given to me during my course of study.*

*Thanks to my friends **Radha, Malar, Ambika, Jamuna akka** and **Fathima akka** who have helped me through all my difficult times during my stay in Kerala.*

*I take this opportunity to thank all my friends **Gopinath anna, Bhavani, Koushik, Aswathy, Aneesa, Jishy, Smitha, Priya, Jyothi, Sree lekha, Sahida, Anuja, Padhu, Sidha**, for their support and affection extended to me.*

The award of ICAR-JRF is deeply acknowledged.

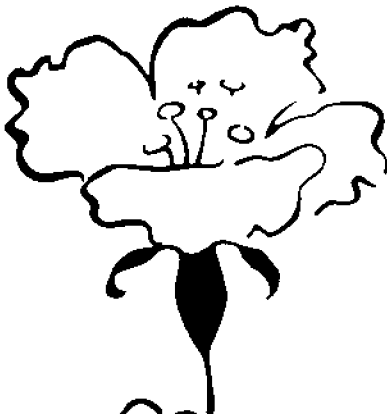
*True word of thanks to my dear dearest friends **Sasi, Geetha, Then, Hari and Sandya** who gave encouragement and shared all the difficulties and support to me through out my life.*

*No words in dictionary could express my love and gratitude to my **Grandma and Grandpa** for their utmost care, affection from my childhood and making the person who I am.*

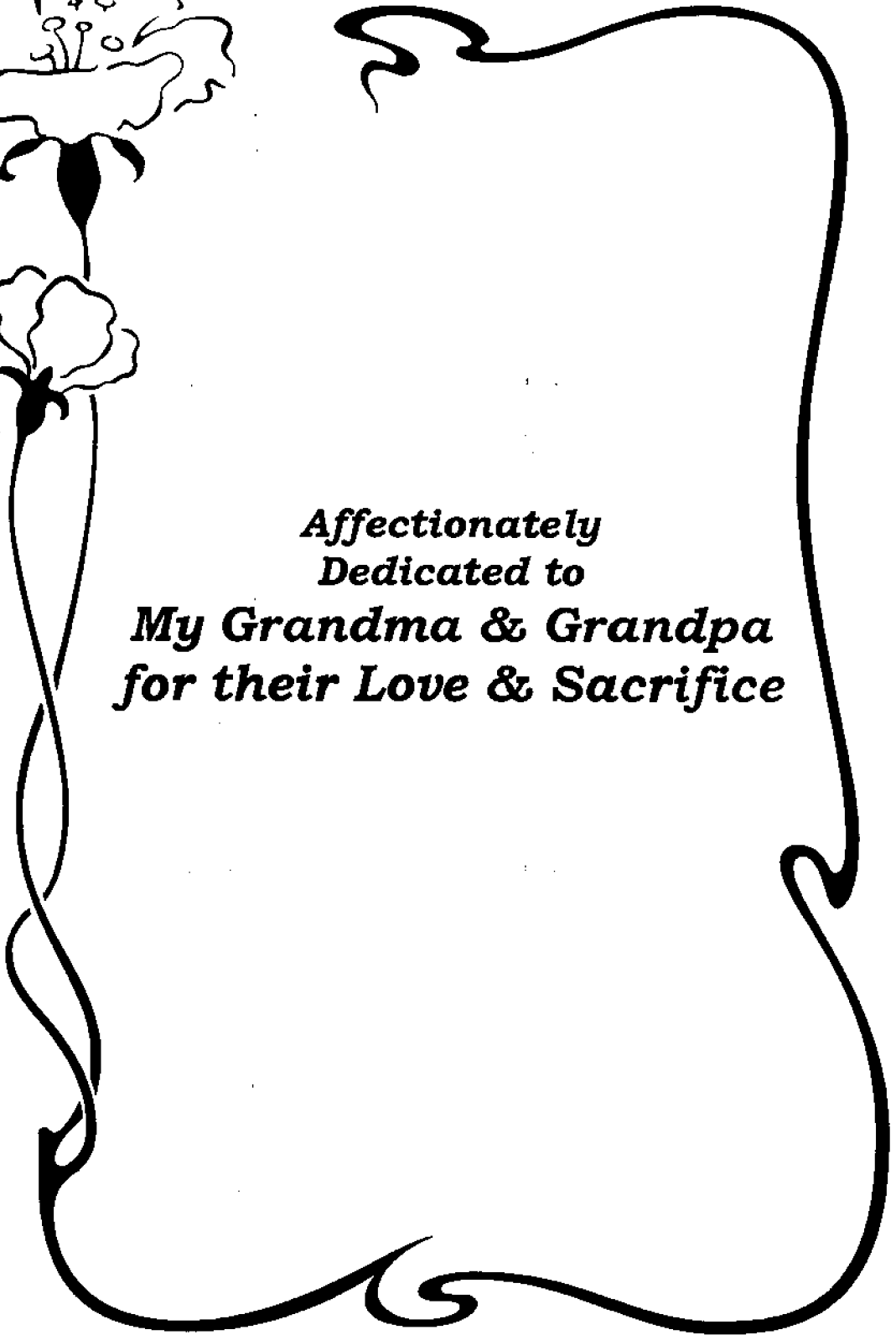
*I am in dearth of words to express my gratitude to my beloved **Amma-Appa, Akka-Mama, Papu (Mridula)** and loving sister (**Malli**) for their constant prayers, affection, moral support, personal sacrifices and sincere encouragement through out the period of study.*

Though not mentioned in person thanks to everyone who helped me throughout the study.

S. Parimaladevi
S. PARIMALADEVI



*Affectionately
Dedicated to
My Grandma & Grandpa
for their Love & Sacrifice*



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INTRODUCTION

I. INTRODUCTION

*“If those who think to achieve, Have a firm and focused mind
They will realize what they thought of, And even as they have thought of”
(Thirukkural)*

Agricultural economy of India is presently in the process of transformation to the status of an industrial entity with the diversification and modernisation of agricultural practices. Transfer of emerging new technologies and challenges posed by WTO are today's challenge before agricultural extension; hence there is a need to augment the support and extension services for agriculture. On the other hand, through 32 Agricultural Universities and four deemed Universities in India around 11,900 agricultural graduates are passing out every year where as only 2,000 are getting employment in government sector. The rest 9900 agricultural graduates go unemployed or search for jobs in the private sector or find avenues for self employment. This has been happening for many years in the recent past. (George and Bhaskaran, 2004)

Youths are the cream of the society. Physical and mental energy of youth is the backbone for the progress of society. Hence it is essential to encourage and assist them to become mature and responsible as contributing members of the society. As we all know training is a major catalytic force for augmenting human productivity in all spheres of development. Training of unemployed youth can play crucial role in providing necessary knowledge, attitude and skill required by them for taking up self employment ventures.

The Ministry of Agriculture, Government of India, in association with National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC) and National Institute of Agricultural Extension Management (MANAGE) has launched a unique programme of “Agriclinics and Agribusiness Centres Scheme” to take better methods of farming to each and every farmer across the country. Agriclinics are those which provide expert services and advice to farmers on cropping practices, technology

dissemination, crop protection from pest and diseases, market trends and prices of various crops in the market, clinical services for animal health and the like which would enhance productivity of crops or animals. Agribusiness centres are those which includes all those business and management activities performed by firms that provide inputs to the farm sector, produce farm products and process, transport, finance, handle or market farm products. The scheme of agriclincs and agribusiness centres aims to tap the expertise available in the large pool of graduates in agriculture and allied sectors. Irrespective of whether you are a fresh graduate or not, and whether you are currently employed or not, you can set your own agriclincs or agribusiness centre and offer professional extension services to innumerable farmers. The objectives of the programme are to supplement the efforts of government extension system, to make available supplementary sources of input supply and services to the needy farmers and to provide gainful employment to agricultural graduates in new emerging areas in agricultural sector.

It is expected that the scheme for setting up of agriclincs and agribusiness centres will strengthen transfer of technology and extension services. The starting of agriclincs and agribusiness centres in the country to serve the farmers is a welcome step not only to strengthen the support and extension services in agriculture, but also to solve the unemployment of agricultural graduates. Moreover, in this world of globalisation and liberalisation the transformation of agriculture from subsistence to commercial is the need of the hour. It is believed to help farmers to improve their farm income and gain them better position in the society, since agripreneurs stay in villages and are available to farmers for all twenty-four hours providing specialised extension services. These centres are thus supposed to bring in both social and economic transformation in the country.

The main aim of the ambitious "Agriclincs and Agribusiness Centres Scheme" is to provide accountable extension services to farmers through technically trained agricultural graduates at the village level. The scheme has accepted the challenge of changing the attitude of agricultural graduates from

being job consumers to job producers. To change the attitude of agricultural graduates and to instill in them the spirit of entrepreneurship and confidence is a challenging task and hence proper training of the agricultural graduates plays vital role in the success of the scheme.

As an integral part of this nationwide initiative, specialized training is provided to agricultural graduates in setting up such a centre. Being provided free of cost, the two month training course is offered by selected institutes across the country. Initiated by Small Farmers Agribusiness Consortium (SFAC), and coordinated by National Institute of Agricultural Extension Management (MANAGE), the course comprises entrepreneurship and business management, as well as skill improvement in the chosen areas of activity. To carry out this massive task, MANAGE has identified a network of around 60 reputed training organizations in the country to train the prospective agripreneurs. In the first cycle of training, 26 organisations have trained 603 agricultural graduates covering 12 states (MANAGE, 2002). At present 58 reputed institutions are involved in agriclinics and agribusiness training programme (MANAGE, 2003). Milestones in the implementation of "Agriclinics and Agribusiness Centres Scheme" are given in Appendix (I). As on March 2003, over 18,000 graduates in agriculture and allied subjects have registered for this training programme and over 2,700 have already been trained (George and Bhaskaran, 2004). In Kerala, the task of organising the training programmes on agriclinics and agribusiness is carried out by the Kerala Agricultural University (KAU), which is the statutory authority in the state as far as the training programmes in agriculture and allied subjects are concerned. The above said training programme is organised by the Central Training Institute (CTI) of the University.

The establishment of agriclinics and agribusiness centres as envisaged by the scheme is mainly dependant on the success of the training programme. Any lacunae in the training programme may result in the failure of the scheme. An important aspect that contributes to the efficiency of any training programme is its

timely monitoring and evaluation. The success of every training programme is based on its evaluation and reconsideration, based on the results of the evaluative study. So far, no study has been conducted in the above said training programme. So, in the initial stage itself there should have an evaluative study to provide suggestions to make the training more effective. The present study was an attempt in this direction. The study was undertaken with the following specific objectives.

Objectives of the study

1. To evaluate the training content and methodology of the agriclinics and agribusiness training programme organized in Kerala by Kerala Agricultural University.
2. To analyse the trainees profile
3. To assess the establishment of agriclinics and agribusiness centres by the trainees
4. To study the constraints, if any, faced by the trainees in establishing the centres and
5. To suggest suitable measures to streamline the training and the scheme on agriclinics and agribusiness.

Scope of the study

It is hoped that the study will help in improving the efficiency of the training programme on agriclinics and agribusiness and will help in modifying and streamlining the training content and methodology, there by it will act as impetus for the establishment of the agriclinics and agribusiness centres. The study will be of immense practical utility not only to KAU but also to all agencies in India involved in the agriclinics and agribusiness training. Moreover, the success stories can be documented and used to motivate other potential entrepreneurs. The study will also be useful to the planners and policy makers, as it provides an idea about the constraints faced by the trainees in establishing the

centres, so that they can think of measures to overcome it. In short, such a study was an urgent necessity as far as the success of the ambitious scheme on agriclinics and agribusiness centres is concerned.

Limitations of the study

This being a pioneering study so far done, the important limitation was the dearth of sufficient literature pertaining to agriclinics and agribusiness training programme. Since the study was completely based on the expressed opinion of the respondents, it may not be free from their personal bias and prejudices. Mailed questionnaire was used for data collection, which restricted meaningful interaction with the respondents. Besides, the study was confined to Kerala state only. Hence the findings and generalizations made based on the study may not fit to other areas and conditions. The present study had the limitation of time and other resources, as it was a single researcher investigation as part of the requirement of the postgraduate programme. Hence, it was not possible for the researcher to explore the area in greater depth and in a comprehensive manner. Even then, all efforts had been taken by the researcher to make the study as systematic and objective as possible, so that the findings of the present study would provide a better insight in to the problems and prospects of the training programme, which could help in its better implementation in future.

Organisation of the thesis

This thesis consists of five chapters including the present one. The first chapter deals with introduction that highlights the objectives, scope and limitations of the study. A systematic review of literature relevant to the study is presented in chapter two. Chapter three describes the methodology, which includes locale of the study; research design; selection of respondents; selection, operationalisation and measurement of variables; data collection and statistical tools used. The fourth chapter is devoted to results and discussion and chapter five summarizes the major findings of the study and conclusions drawn from the analysis followed by references, appendices and abstract of the thesis.

REVIEW OF LITERATURE

II. REVIEW OF LITERATURE

To have proper comprehension and make generalizations from any research in social sciences, specification of the related concepts and their delineation are the pre requisites. This would enable the researchers to sharpen their thinking, collect relevant information, select appropriate statistical tools and interpret in proper perspectives. Keeping the objectives in view, a systematic review of the literature concerning the related concepts, which are meaningful and relevant to the present study, has been attempted in this chapter.

- 2.1 Concept, nature and importance of agriclinics and agribusiness
- 2.2 Concept of entrepreneur and entrepreneurship
- 2.3 Profile of the entrepreneurs
- 2.4 Perception of trainees regarding effectiveness of the training programmes
- 2.5 Socio psychological variables influencing the entrepreneurs in establishing their enterprises
- 2.6 Constraints faced by the entrepreneurs

2.1 CONCEPT, NATURE AND IMPORTANCE OF AGRICLINICS AND AGRIBUSINESS

Downey and Erickson (1987) defined agribusiness as one which includes all those business and management activities performed by firms that provide inputs to the farm sector, produce farm products and process, transport, finance, handle or market farm products.

Rajagopal (1990) explained that the study of agribusiness usually entails description of the cropping pattern and production along with other socio economic

aspects such as the overall economic structure, geographical distribution of markets and marketable surplus, barriers in the open market for better price of the produce, traders concentration, potential crops, competitive price structure, market segments, state interventions, market education at farmers level and future trend.

According to Govindappa and Halasagi (1996) agribusiness includes the processing of food and fibre products, agricultural marketing services and agricultural input services.

According to Butter and Kolar (2000) plant health clinics are generally the plant protection centres meant for rendering prompt advisory services to the farmers in respect of plant health hazards caused by biotic and abiotic stresses through the actual diagnosis of samples.

Prakash (2000) stated that agribusiness has been a significant creator of season jobs and has improved self-employment opportunities among the rural poor, especially women.

According to Arora (2001) dedicated personnel with managerial skills are a critical input for successful agribusiness. Agribusiness managers should be familiar with business laws, ethics, socio-economic conditions too besides being proficient in agricultural knowledge and managerial skills.

Agriclinics are those which provide expert services and advice to farmers on cropping practices, technology dissemination, crop protection from pests and diseases, market trends and prices of various products in the market and also clinical services for animal health etc. which would enhance productivity of crops or animals. Agribusiness centres are those, which provide input supply, farm equipment on hire and other services. (Kumar *et al.* 2001)

According to Neelam *et al.* (2002) quality consciousness, grading, standardization of agro-products, market information and research and development linkages are of paramount importance for agribusiness management.

According to Rajan *et al.* (2002) mode of services and charges were adoption based in which the whole farm could be adopted under the clinic and mapping of fertility status and season wise monitoring can be done, individual based in which a farmer needs a service and consultation in a particular time and issue based in which agriclinics may emphasize only to some selected issues like soil reclamation, which were much importance to the region.

Operational model of agriclinics (Rajan *et al.* 2002)

Consultation → diagnosis → recommendation

↑

↓

Follow up ← curing ← application

Agribusiness centres would provide paid services for enhancement of agriculture production and income to farmers. Centres would need to advice farmers on crop selection, best farm practices, post harvest value added options, key agricultural information, price trends, market news, risk mitigation and crop insurance, credit and input access as well as critical sanitary and phyto sanitary considerations which the farmers have to keep in mind. (SFAC, 2002)

Agribusiness consortium has planned a multi-sourced extension service with agriclinics and agriservice centres to be financed by National Bank for Agriculture and Rural Development. There is need for a soft loan at four per cent interest with a gestation period without interest for two years. Then only these centres and clinics will be attractive and be able to face competition. (Venkatratnam, 2002)

Bhagwat (2003) in his study on plant protection service through agriclinic centre stated that offering services to crop growers from the plant health clinics or agriclinics is making sound business sense for agricultural graduates even as they find the scope of being a fast progressing agripreneur. The umbrella of services on offer include a varied mix encompassing pest surveillance and disease diagnostics, sale of insect pest traps, pest monitoring devices, repair and maintenance of spray equipment, and also production of bio control agents.

According to Chand (2003) agriclinic is like health clinic where soil diagnosis, plant protection and various operations can be done with the help of scientific instruments. Based on the results of such diagnosis suitable measures can be suggested to the farming community. Agriclinic acts as a 'farming school' where agricultural graduates can directly contact the small and marginal farmers and offer them necessary guidance.

2.2 CONCEPT OF ENTREPRENEUR AND ENTREPRENEURSHIP

Joshi and Kapur (1973) described farm entrepreneur as a person (can be a group of persons also) who thinks of, organizes and operates the business and is responsible for the results i.e., losses and gains from the business. He is pioneer in organizing and developing the farm firm.

The entrepreneur plays an important role in the economic development of a country and entrepreneurial competence makes all the difference in the rate of economic growth. He is the key person who envisages new opportunity, new techniques, new lines of production, new products and co-ordinates all other activities. Basically an entrepreneur is a person who is responsible for setting up an

enterprise. In fact, he is one who has the initiative skill for innovation and who looks for high achievements. (Patel, 1995)

Entrepreneurship development model for 21st century explains entrepreneurs as those who 1.Learn and listen 2.Take risk and responsibility 3.Know their own uniqueness and hence are innovative, creative in their own way 4. Are free from fear of failure 5.Always add value to what they produce 6.Above all, are always achieving. (Ranade, 1996)

Entrepreneurship is highly complex and is subjected to prevailing socio economic specificities. Therefore, one cannot have a set of universal and finite factors that can be applied everywhere; on the other hand, motivating factors, personality attributes and functions of entrepreneurs would vary depending on several other variables. (Chandrapoojary, 1997)

Entrepreneurs are persons who initiate, organize, manage and control the affairs of an enterprise that combine the factors of production to supply goods and services in any sector (Porchezian *et al.* 1998)

Entrepreneurs are the kingpins of the business: not merely men willing to trade for a profit but those who are able to exploit the available resources in the right manner at the right time and are in the process of creating more goods and employment, and thereby offer a better standard of living to the people of the region. (Rajavel, 2000)

Sharma (2000) stated that an entrepreneur is one whose initiative decides, starts and manages an enterprise. Entrepreneurship is the term used to describe the quality or ability that demonstrates the challenge of work.

According to Hyderabad and Krishnamurthy (2002) an entrepreneur is a reformer. He reforms the society through his actions and creates demand for products, which are not in existence. Though he has to produce and sell what individuals require, his actions go beyond fulfilling demand requirements. As an innovator he is expected to produce things, which the people have not even dreamt of. He should, with his actions, convert savings into productive investments and create additional wealth. Besides capital information, entrepreneurs owe a lot to environment. They have to evaluate continuously their actions from the point of environment and should undertake such actions, which would result in environmental improvement rather than its degradation. The poor and downtrodden consider him as a philanthropist who contributes a portion of his wealth for their economic well being and look up to him for succour.

According to Murthy (2002) an entrepreneur is described as a capitalist employer seeking profit, a risk bearer, a monopolist, a decision maker, an organizer, an innovator and a manager. The compound of all these attributes in operation may be termed as entrepreneurship.

Kumar (2003) stated that entrepreneurship involves investment of men, money and material resources, which will be processed in terms of production of goods and services, through use of technology and finally marketed to the customer at an affordable and yet profitable price. It also involves a market survey, prediction of the goods and services which are likely to get demand and then undertaking risk and to create something new by organizing and coordinating resources.

According to Jyothi (2003) an entrepreneur is a person who undertakes a wealth creating and value adding process through developing ideas into workable propositions, assembling resources and making things happen. An entrepreneur then is one who organizes, manages and assumes responsibility for a business.

Entrepreneurs are either born or made. Entrepreneurship is the quality or attitude of becoming an entrepreneur. A proper training can tap the potential of aspiring incumbents to become entrepreneurs. (Laxmisha, 2003)

According to Raju (2003) an entrepreneur is one who organizes, owns and runs an enterprise by setting up a commercial venture with determination, zeal, enthusiasm and basic knowledge of the business that helps to cope a crisis or risk situation. Such attributes lead to a process called entrepreneurship.

According to Rao and De (2003) entrepreneur means a risk taker, one who promotes a business activity. An entrepreneur is a dynamic agent of change or the catalyst who increasingly transforms the physical, natural and human resources into corresponding production possibilities.

2.3 PROFILE OF THE ENTREPRENEURS

Perumal *et al.* (1990) reported that most women entrepreneurs belonged to young age, had secondary level of education, had high level of experience, had encouraging level of social participation, greater use of mass media and had attended specialized and skill oriented training.

Vinayagam (1998) in the profile analysis of the agribusiness operators revealed that 80 per cent of the respondents had subsidiary occupations. One third of the respondents belonged to the high category in the case of age, economic status, scientific orientation, self concept and credit orientation. 60 per cent of them were aged above 31 at the start of their business.

Dhameja *et al.* (2000) revealed that majority of the respondents (51 per cent) started their units during the age of 26- 35 years, there by indicating that this age

group is the most suitable for venturing into self employment. It also indicated that most of the women entrepreneurs had good educational background with majority of them being graduates (55 per cent). Majority of the respondents (57 per cent) had no experience when they started their enterprise. Thirty five per cent of the women respondents had attended training prior to the commencement of their business. Fifty one per cent of the women respondents had no income before establishment of the enterprise and nine per cent of the respondents were married.

Khajuria and Sinha (2000) in a study on emerging socio psychological profile of successful women entrepreneurs in Jammu and Kashmir observed that 70.6 per cent of the women entrepreneurs were first generation entrepreneurs, 66.6 per cent were living in single families and 94 per cent were graduates.

Rajavel (2000) observed that majority of the entrepreneurs were matriculates. Graduates, postgraduates and technically qualified persons were less interested in starting industrial units.

Varadarajan and Ramalingam (2001) while studying entrepreneurial values in Coimbatore city inferred that 47 per cent of entrepreneurs had graduate level of education and 33 per cent had diploma level education. It appeared that people with less educational background, and those who could not pursue higher studies went for entrepreneurship career.

The profile of women entrepreneurs revealed that 50 per cent of the respondents had started their unit at the age of 31 to 40 years and 33 per cent entered business between 21 and 30 years. The educational qualification of the respondents showed that 35 per cent had formal education upto primary class, 25 per cent had education upto school final, 20 per cent had pre degree, 16.7 per cent had completed degree and only 3 per cent had post graduation. Ninety per cent of the women

entrepreneurs were married and 60 per cent of them belonged to nuclear family. A high percentage of respondents were found to be in the low income group of Rs. 10,000 to 50,000 annually. It is also revealed that 45 per cent of them had received training before starting their enterprises. (Narayanan, 2002)

Rajendran (2002) found that out of the 89 entrepreneurs selected for his study, mean age of the entrepreneurs was 38 and the maximum number of entrepreneurs were in the age group of 35-45 years. As regards the educational status of the sample entrepreneurs, 40 per cent of them were found to be illiterate.

Dubhashi (2003) revealed that the most successful women entrepreneurs were in their age of around forty. Seventy per cent of them were married and had children and 87 per cent came from middle income families. The women were fairly well educated, with 53 per cent of them having a university degree.

Kumar (2003) in his study observed that 40 per cent of the women entrepreneurs belonged to the age group of below 30 years and another 32 per cent of women belonged to the age group of 30-40 years. Their educational qualification showed that 40 per cent of them were graduates and another 22 per cent of them were postgraduates and 30 per cent had studied upto intermediate level.

Reddy (2003) revealed that most of those entered in entrepreneurial activities were around 35 years old. Majority (51 per cent) of the entrepreneurs had only intermediate or below intermediate education. However among the sample entrepreneurs 12.5 per cent had post graduation, while 13.35 per cent had the background of technical education in the form of I.T.I and Diploma, 5.83 per cent had professional education of B.E and 16.67 per cent of them had the background of the business and industry.

2.4 PERCEPTION OF TRAINEES REGARDING EFFECTIVENESS OF THE TRAINING PROGRAMMES

2.4.1 Perceived effectiveness of the training methods by the trainees

Murthy and Rao (1990) concluded that preferences of trainees differed in different types of courses. Trainees of fruit production preferred lecture, discussion and slide show. In ornamental horticulture trainees preferred lecture, discussion and outstation study trips. Trainees of mushroom cultivation laid emphasis on practicals and demonstration besides lecture. In plant propagation training, lecture, discussion and visits to experimental plots were preferred. Trainees of plant protection training preferred lecture, visits to experimental plots and slide show. In training for post harvest technologies lecture, discussion, visits to experimental plots and practicals were preferred according to the trainees. Overall preference went to lecture, discussion followed by visits to experimental plots, slide show, film show, practicals and demonstration.

Mohrir and Nandapurkar (1991) reported that majority of the gram sevak preferred teaching methods like lecture, demonstration cum field visits followed by discussion using audio visual aids.

Ravi (1991) reported that skill demonstration, lecture using audio visual aids, field trips and outdoor practicals were found to be the effective teaching methods as perceived by Agricultural Officers and Deputy Agricultural Officers.

According to Puzari (1992) teaching methods viz., lecture, field practicals, group discussion and field visits were preferred by majority of the village level extension workers for the conduct of effective training.

Mani (1996) concluded that a combination of methods viz., field trips + skill demonstration + discussion should be employed during training sessions.

Murugesan (1996) found that group discussion and role playing were the methods preferred by adult learners. He concluded that the universal applicability of any one method and instructional material could not be possible, because each method has its own distinctive advantage and limitation. The researchers have to try various methods and integrate the methods with distinctive advantages and suggest to different situations.

Chitnis and Kothikhane (2000) revealed that the extension methods viz., demonstration, group discussion and field trips were ranked I, II and III as superior methods as they were preferred by 97,79 and 69 per cent of the trainee respondents respectively.

Manjula (2001) reported that the four methods combination (extension talk + group discussion + method demonstration + video) was found to be more effective in transfer of technology than the three methods combination, two methods combination and a single method.

Chauhan *et al.* (2002) revealed that maximum knowledge of farmers increased through the presentation of visuals plus discussion followed by printed material plus discussion, group meetings plus discussion and lecture plus discussion.

Kumar (2003) revealed that most of the respondents preferred demonstration method of training followed by group discussion, lecture and use of audio visual aids.

2.4.2 Perception of the trainees regarding the trainer's effectiveness

Somasundaram (1987) suggested that selection of trainer, being an important activity in the pre training phase, should be done with utmost care. He suggested to select the trainers, competent to impart effective training by "specialization-experience-aptitude" criteria.

Vashista (1987) reported that of all the factors that have a bearing on the effectiveness of a training programme, none was equal to the staff competence. The findings of his study also revealed that staff competence was a determining factor for the effectiveness of discussion groups, increasing the comprehensiveness and making the programme more efficient. Competent staff is necessary to enhance the importance of training programme in general and attract the needy farmers to participate in it. He further recommended that for the successful implementation of Farmers Training and Education Programme, people of commitment and devotion should be selected as trainers. Competence of the staff should be the most important consideration while recruiting staff and transferring staff to the Farmers Training Centre, he concluded.

Thamban (1990) while studying the perception of agricultural scientists and extension personnel in the selection of trainers for farmers training, revealed that it should be based on certain criteria such as basic degree in agriculture, field experience, knowledge of local agricultural problems, knowledge of local language, communication ability, ability in choosing the appropriate teaching method, expertise in using audio visual aids, specialization in the subject matter area and undergone training in training methodology.

Nimje *et al.* (1992) bring out that almost all the resource persons of both the workshops were having convincing power and had an impressive personality with

good oratory. Talkativeness, sound practical knowledge and well preparedness on the topic were the other characteristics, which were rated very high by over 82 per cent officers of both the workshops.

While discussing his perspective on training the development personnel of India for twenty first century Tyagi (1998) opined that the existing training institutions should be streamlined and strengthened by giving equal footing to subject matter specialists and social scientists in the training institutions for development personnel. He also suggested that experts should be hired from all the concerned sectors.

According to Pal *et al.* (2000) the participants were found highly satisfactory with the overall performance of the training. They were moderately satisfied with the coverage and competence of the teachers.

Kumar (2003) in his study on training needs of dairy farm instructors of the Dairy Development Department of Kerala, while assessing the preference for trainers, found that most of the respondents preferred to invite trainers from outside the parent organization but within the state for all the major subject matter areas. This is in agreement with the findings of Sakhivel (2001).

2.4.3 Utility of the content of the training programme as perceived by the trainees

Bhople *et al.* (1992) noted that cent per cent of the trainees were of the opinion that the syllabus of the training was relevant to their needs and was exhaustive in nature while 95.95 per cent trainees expressed the syllabus as well balanced. Regarding subject matter, 95.95 per cent of the trainees expressed that topics of subject matter were accurate, complete and well prepared. Majority of the

trainees were of the view that the subject matter contents were mostly theoretical in nature.

According to Prasad and Mahipal (1993) trainees perceived that most of the topics covered during the training programme were fairly well covered to very much well covered. The perceptions of participants regarding the utility of the topics covered during the training programme clearly indicated that all the topics which were rated high for their coverage were useful from the field application point of view.

Mani (1996) concluded that majority of the respondents preferred only two content areas namely message on latest technologies and practical field problem.

A majority of the trainees perceived the information given in the training programme as more adequate, highly practical, more useful, highly understandable, presented in order, very well explained and well stressed the main points. Most of them felt that the physical facilities were more comfortable and the duration was optimum. (Karthikeyan, 1997)

Sharma and Sharma (1999) found that the course content of the training programme was according to the need and interest of the respondents but the duration of the training programme was not quite sufficient looking into the course content, were the opinion of Assistant Agricultural Officers about the training programme.

Kumar and Dutt (2000) reported that more than half of the trainees perceived the time period for coverage of topic as adequate and also rated the presentation as good, in the training course on agricultural machinery for higher productivity.

According to Pal *et al.* (2000) the participants were found highly satisfactory with the overall performance of the training. They were moderately satisfied with the general arrangement and the teaching methods used in the training programme.

Sagar (2002) revealed that majority of the lectures and practicals were perceived by the trainees to be very useful (81 per cent) followed by useful (15 per cent) and least useful (4 per cent) which indicates that the course content of the training programme was very useful.

Singh *et al.* (2002) found that there is positive and high correlation between the usefulness and extent of coverage of subject matter. Similar finding has been reported by Prasad *et al.* (1990)

2.5 SOCIO PSYCHOLOGICAL VARIABLES INFLUENCING THE ENTREPRENEURS IN ESTABLISHING THEIR ENTERPRISES

Entrepreneurship is too complex a phenomenon to be explained by any single set of factors. While defining entrepreneurship, one is often reminded of the story of the four blind men describing an elephant. Psychologists, sociologists, anthropologists, economists and researchers from different disciplines have tried to explain and describe this complex process. Some researchers have classified these into six different schools of thought namely the “great person”, the psychological characteristics, the classical, the management, the leadership and the entrepreneurship school. According to them, each school of thought with its own underlying set of beliefs focuses on one particular aspects of entrepreneurship. Thus while researchers with psychological characteristics as focus would discuss factors such as the need for achievement and risk taking capability of an individual, those with entrepreneurship focus would get involved in knowing how entrepreneurial persons work in complex organizations. While there could be divergent views or models of entrepreneurship,

there seems to be unanimity as far as the entrepreneurial function or entrepreneurial process is involved. Different authors have put it under different captions (Kanitkar, 1994).

The following is the list of socio psychological variables positively influencing the entrepreneurs in establishing their enterprises successfully as disclosed by several researchers.

Sl.No.	Variables	Author
1	Age	Porchezian (1991), Jayalekshmi (1996), Vinayagam (1998), Gajbhiye (2002) and Patil <i>et al.</i> (2002)
2	Annual income	Manjula (1995), Jayalekshmi (1996), Thenamudha (1996), Banerjee and Talukdar (1997), Subrahmaneyshwari (1997), Vinayagam(1998), Gajbhiye (2002) and Kumar <i>et al.</i> (2003)
3	Achievement motivation	Porchezian (1991), Thenamudha (1996), Pandya (1997), Porchezian <i>et al.</i> (1998), Murthy (2002), Patel (2002), Rao and Appaji (2002), Singh (2002), Rajendran (2003), Supriya and Srinath (2003)
4	Attitude towards self employment	Jayalekshmi (1996)
5	Assertiveness	Jyothi (2003), Supriya and Srinath (2003)
6	Competition orientation	Singh (1992), Jayalekshmi (1996) and Vinayagam (1998)
7	Communication	Kokate and Nand (1991) and Manilal (2002)
8	Cosmopolitaness	Singh and Krishna (1994), Jayalekshmi (1996), Pandya (1997), Vishwas (2000), Singh (2002) and Patel <i>et al.</i> (2003)

9	Creativity	Murthy (2002), Rajendran (2003) and Seshiah (2003)
10	Credit orientation	Porchezian (1991) and Vinayagam(1998)
11	Decision making ability	Kokate and Nand (1991), Jayalekshmi (1996), Pandya (1997), Porchezian <i>et al.</i> (1998), Vinayagam(1998), Rao and Appaji (2002), Supriya and Srinath(2003)
12	Economic motivation	Perumal <i>et al.</i> (1990), Kokate and Nand (1991), Jayalekshmi (1996) and Vishwas (2000)
13	Economic independence	Shelke <i>et al.</i> (2002), Murthy (2002), Rajendran (2003) and Seshiah (2003)
14	Economic status	Vinayagam(1998) and Arora (2001)
15	Education	Manjula (1995), Jayalekshmi (1996), Subrahmaneyshwari (1997), Vinayagam (1998), Dikle (2002), Palem (2002), Patil <i>et al.</i> (2002) and Kumar <i>et al.</i> (2003)
16	Extension contact	Vishwas (2000), Palem (2002), Patel (2002) and Patel <i>et al.</i> (2003)
17	Experience	Thenamudha (1996), Jayashree and Sugirvathi (1998), Patil <i>et al.</i> (2002), Supriya and Srinath (2003)
18	Family type	Govindappa and Halasagi (1996), Jayalekshmi (1996), Banerjee and Talukdar (1997) and Vinayagam (1998)
19	Flexibility	Murthy (2002), Seshiah (2003), Supriya and Srinath (2003)
20	Information seeking behaviour	Pandya (1997), Singh (2002), Patel (2002), Patel <i>et al.</i> (2003), Supriya and Srinath (2003)
21	Innovativeness	Kokate and Nand (1991), Porchezian <i>et al.</i> (1998), Vishwas (2000), Rao and Appaji (2002), Patel (2002), Singh (2002), Jyothi (2003) and Seshiah (2003)

22	Initiative	Venkatraghavan(1998), Vinayagam(1998) and Seshiah (2003)
23	Internal urge to do something new	Kalaskar <i>et al.</i> (2002) and Seshiah (2003)
24	Knowledge possession	Jayalekshmi (1996), Pandya (1997), Vinayagam (1998), Seshiah(2003), Supriya and Srinath (2003)
25	Land holding	Manjula (1995), Subrahmaneyshwari(1997) and Kumar <i>et al.</i> (2003)
26	Leadership ability	Pandya(1997), Vishwas (2000), Murthy (2002), Palem (2002), Rao and Appaji (2002), Singh (2002), Supriya and Srinath (2003)
27	Level of aspiration	Porchezian (1991), Porchezian <i>et al.</i> (1998) and Palem (2002)
28	Managerial ability	Dahiya <i>et al.</i> (1999), Arora (2001), Rao and Appaji (2002) and Singh (2002)
29	Mass media contact	Porchezian (1991) and Jayalekshmi (1996)
30	Media utilisation	Vinayagam(1998), Narayanan (2002) and Palem (2002)
31	Motivation	Jayalekshmi (1996), Gaibhiye (2002) and Narayanan (2002)
32	Occupational background	Sabbarwal (1994), Jayalekshmi (1996) and Vinayagam(1998)
33	Perseverance	Murthy (2002), Shelke <i>et al.</i> (2002), Jyothi (2003) and Seshiah (2003)
34	Risk taking ability	Perumal <i>et al.</i> (1990), Kokate and Nand (1991), Porchezian (1991), Jayalekshmi (1996), Pandya (1997),

		Sahlman (1997), Porchezian <i>et al.</i> (1998), Gaibhiye (2002), Murthy (2002), Rao and Appaji (2002), Shelke <i>et al.</i> (2002), Singh (2002), Jyothi (2003), Rajendran (2003), Seshiah(2003), Supriya and Srinath (2003)
35	Rational orientation	Vinayagam(1998)
36	Self actualization	Vinayagam (1998)
37	Self confidence	Jayalekshmi (1996), Vinayagam (1998), Murthy (2002), Rao and Appaji (2002), Seshiah (2003), Supriya and Srinath (2003)
38	Self interest	Kalaskar <i>et al.</i> (2002)
39	Scientific orientation	Porchezian (1991) and Vinayagam (1998)
40	Social participation	Manjula (1995), Jayalekshmi (1996), Subrahmaneyshwari (1997) and Kumar <i>et al.</i> (2003)
41	Support from development agencies	Thenamudha (1996) and Venkatraghavan (1998)

2.6 CONSTRAINTS FACED BY THE ENTREPRENEURS

Once a person feels the need for becoming an entrepreneur in order to reach his/her ideal self, their mind will be inclined towards thinking and acting in the desired direction. In that process, they may have to face the various constraints in reaching the ideal self. Here, an attempt was made to review the constraints faced by entrepreneurs in establishing their business successfully.

Sl. No.	Author	Aspect	Constraints
1	Sadangi and Singh (1994)	Constraints on occupational diversification	<p>Economic constraints: Poor purchasing power, lack of credit facilities</p> <p>Technological constraints: Lack of awareness regarding potential enterprises and poor technical know how</p> <p>Infrastructural constraints: Lack of good market, inadequate labour force, non availability of insurance facilities and lack of adequate financial institutions.</p> <p>Promotional constraints: Complicated procedure to get loan, lack of needed assistance, ineffective and corrupt extension agencies, corrupt practices in banks, unrealistic repayment schedule in banks, inadequate follow up services, inadequate availability of raw materials, insufficient government incentives and lack of improved technology.</p>
2	Venkataramaiah and Manjula (1996)	Problems faced by women entrepreneurs	Insufficient amount of loans, delay in payment from the bank, lack of local demand and marketing facilities, lack of availability of inputs and proper transport facilities.
3	Jayalekshmi <i>et al.</i> (1997)	Constraints experienced by	Inadequate experience about new occupations, lack of successful

		women entrepreneurs in Kerala	entrepreneurs in the locality, family members preference for jobs, marketing problem, lack of financial assistance, lack of time, lack of demand, too much competition and lack of own capital.
4	Talukdar <i>et al.</i> (1998)	Constraints faced by women entrepreneurs	Lack of requisite support from concerned technical department and limitation of government policies, lack of support from family members, negative social attitude towards women entrepreneurs, tendency of others to underestimate a woman's capability of entrepreneurship, higher scrutiny and cumbersome formalities in banks or financial institutions and lack of pertinent knowledge.
5	Vinayagam (1998)	Constraints experienced by agribusiness operators in Kerala	Finance, marketing, raw materials, labour, technical and managerial assistance
6	Selvaraj (2000)	Entrepreneurial development – a model	Economic constraints: Availability of money or possibility of procuring money Personal constraints: Ability to take risk, work hard and dealing with people. Social constraints: Family circumstances forcing them to get

			employment, non co-operation of family members and poor values of the people around regarding business.
7	Sundari and Geetha (2000)	Constraints in micro enterprises	Lack of technical knowledge, lack of quality control, lack of communication and market information, poor quality of raw materials, lack of storage facilities, inadequate motivation and primitive technology.
8	Sharma <i>et al.</i> (2001)	Constraints faced by women entrepreneurs	Insecurity, conflicting social norms, lack of initiative and low risk taking ability.
9	Ahire <i>et al.</i> (2002)	Constraints faced by green house entrepreneurs	Lack of technical know how, not getting information in time, bank delay in giving loan, non availability of market and market commission.
10	Borse and Sawant (2002)	Constraints reported by agricultural engineering students to start agro entrepreneurship	Technical constraints: Unavailability of expert guidance Financial constraints: High initial investment of entrepreneurs and lengthy procedure of loan sanction through banks. Other constraints: Unavailability of suitable place and lack of risk bearing ability.
11	Ingale <i>et al.</i> (2002)	Constraints faced by dairy farmers regarding dairy as	Lack of technical knowledge, non availability of adequate finance, high cost of unit, low irrigation facilities, non

		an enterprise	availability of sufficient and timely loan.
12	Narayanan (2002)	Constraints experienced by women entrepreneurs in agribusiness	High price for raw materials, shortage of self finance for fixed and working capital, high rate of interest and competition from other units.
13	Pandya and Patel (2002)	Constraints in development of Inland fish entrepreneurship	Economic constraints: Non availability of loans from nationalized banks in time, high cost of inputs and low price for the produce. Extension constraints: Lack of training facilities, lack of assured market and inadequate transport facilities Production constraints: Non availability and untimely supply of seeds.
14	Patil <i>et al.</i> (2002)	Constraints analysis of little gourd growers in development of entrepreneurial success	High market fluctuation, exploitation by middlemen, lack of market information, poor training facilities, lack of knowledge, costly labour and no support price.
15	Tarde <i>et al.</i> (2002)	Problems faced by farmers while keeping poultry as an enterprise	Inadequacy of capital, less remunerative prices, high rate of interest for loan, construction cost, irregular visits of officers and climatic changes.
16	Wagh <i>et al.</i> (2002)	Constraints experienced by dairy	Human resources, unpredictable climatic factors, packing material, market facilities and unremunerative

		entrepreneurs	market rates.
17	Kamala and Raju (2003)	Problems faced by farm women in managing enterprises.	Non availability of raw material, inaccessibility to the place of work, transport facility, lack of knowledge, skill and experience.
18	Kumar (2003)	Obstacles faced by women entrepreneurs during the commencement and running of their enterprise	Equity finance, marketing and working capital
19	Raghavulu (2003)	Constraints faced by women entrepreneurs	<p>Socio personal problems: Resistance from husband /family at the time of start, dual duties, indifferent attitude of society, non cooperation of family members, backbiting by others, problems relating to government agencies like large amount of paper formalities, ignorance of procedures and discrimination with women entrepreneurs.</p> <p>Financial problems: Insufficient financial assistance, problems in security and margin money, tight repayment schedule and lack of financial assistance.</p> <p>Marketing problems: Competition from</p>

			cheaper goods, far distance to the market, lack of information on changing markets, delay payment and inadequate publicity.
20	Rajendran (2003)	Problems and prospects of women entrepreneurs	Lack of self confidence, finance, shortage of raw material, stiff competition, high cost of production, marketing and selling.

MATERIALS AND METHODS

III. MATERIALS AND METHODS

Research methodology is a way to systematically solve a research problem. It may be understood as a science of studying how research is done scientifically. It includes various aspects that are generally adopted by a researcher in studying research problem along with the logic behind them. For any research project, methodology forms the nerve centre. It is the methodology which answers “how” aspects of the research. In this chapter, the methodology adopted for the study is presented under the following headings.

- 3.1 Locale of the study
- 3.2 Research design
- 3.3 Sampling procedure
- 3.4 Selection, operationalisation and measurement of variables
- 3.5 Procedure involved in data collection
- 3.6 Statistical tools used

3.1 LOCALE OF THE STUDY

“Agriclinics and Agribusiness Centres Scheme” was launched by Ministry of agriculture, Government of India, in association with National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC) and National Institute of Agricultural Extension Management (MANAGE) to train large pool of agricultural graduates in the field of entrepreneurship for self employment. In Kerala, the task of organising the training programme on agriclinics and agribusiness is carried out by the Kerala Agricultural University, which is the statutory authority in the state as far as the training programmes in agriculture and allied subjects are concerned. The above said training programme is organised by the

Central Training Institute of the University, for graduates in agriculture and allied sectors. Hence Kerala state constituted the locale of the study.

3.2 RESEARCH DESIGN

After careful analysis of available literature and keeping the objectives in view, more of qualitative and attitudinal variables were selected for the study. Most of the selected variables were of ex post facto in nature and the researcher had very little chance to control them. Hence an ex post facto research design was used for the present study.

According to Kerlinger (1964) ex post facto research is a systematic, empirical enquiry in which researcher does not have direct control over independent variables, because their manifestations have already occurred or because they are inherently not manipulable.

3.3 SAMPLING PROCEDURE

Sixty trainees of agriclinics and agribusiness training programme organized by Kerala Agricultural University were the major category of respondents of the study. The period under study was from May 2002 to October 2003. During this period, there were three batches comprising a total of 87 trainees. The list of trainees who had undergone the training during this period was collected from the Central Training Institute, KAU. From the list, 20 persons were selected randomly from each batch and thus a total of 60 trainees constituted the major respondents of the study.

An attempt was also made in the present study to identify the perception of trainers regarding the relevancy of the content of the training programme. For this, the list of trainers who had handled sessions in the agriclinics and agribusiness

training programme during the period was collected from the Central Training Institute from which 30 trainers were purposively selected.

3.4 SELECTION, OPERATIONALISATION AND MEASUREMENT OF VARIABLES

The importance of any research study mainly depends on the variables taken into account. Justifiable variables were selected after relevancy rating. Appropriate measurement techniques were used to quantify the variables based on literature. The procedure followed in the selection of variables, their operationalisation and measurement are stated below.

3.4.1 Selection of variables

3.4.1.1 *Personal variables*

Based on review of literature and discussion with experts, a list of variables was collected related to this study. These variables were subject to relevancy rating in a five point continuum ranging from most important to not important with the score ranging from 5 to 1. The relevancy rating was done with the judges opinion. The variables, which were having the score value more than four, were selected. Accordingly, the following seven variables were selected for the study.

1. Age
2. Sex
3. Educational qualification
4. Marital status
5. Subject specialisation
6. Annual income
7. Occupation

3.4.1.2 *Socio psychological variables*

Based on review of literature 75 socio psychological variables have been identified, which may influence the trainees in establishing agriclinics and agribusiness units. By discussion with experts, forty four variables have been selected, and in order to know the relevancy of each of the variable, the variables thus selected were subjected to judges rating. The responses were obtained in a five point continuum viz., Most relevant, relevant, undecided, slightly relevant and not relevant with the weightage of 5,4,3,2 and 1 respectively. Kendall's co efficient of concordance was used to assess whether there is agreement among the judges in ranking the variables.

Let R_i denotes the sum of ranks secured by i^{th} item, ($i=1,2,3\dots n$), then Kendall's co efficient of concordance is given by,

$$W = \frac{\sum_{i=1}^n R_i^2 - (\sum R_i / n)^2}{1/12 K^2 n (n^2 - 1)}$$

Where, n = number of items

K = number of judges

Based on the significance value of the test, the following socio psychological variables were selected for the study.

1. Attitude towards self employment
2. Entrepreneurial ability
3. Managerial ability
4. Self confidence

5. Decision making ability
6. Information seeking behaviour

3.4.1.3 Training variables

Keeping the objectives in view, after a thorough review of research work done in the past on various aspects of the training and having discussion with the experts, the following training variables were selected in fulfilling the objectives.

1. Perceived effectiveness of the training methods by the trainees
2. Perception of the trainees regarding the trainer's effectiveness
3. Utility of the content of the training programme as perceived by the trainees
4. Perception of trainers about the relevancy of the content of the training programme

3.4.1.4 Other related variables

Other related variables selected to make the study much more effective were mentioned below.

1. Agriclincs and agribusiness centres established by the trainees
2. Constraints faced by the trainees in establishing agriclincs and agribusiness centres
3. Suggestions to improve the scheme on agriclincs and agribusiness centres.

3.4.2 Operationalisation and measurement of variables

3.4.2.1 Personal variables

3.4.2.1.1 Age

Age of the respondent was operationally defined as the number of completed years of the respondent at the time of the study.

In this study, the respondents were categorized by following the Government of India norms.

Category	Age group
Young	<35 years
Middle	35-45years
Old	>45 years

3.4.2.1.2 Sex

It indicated whether the respondent is male or female and accordingly they were put under two categories as shown below.

Category	Code
Male	1
Female	2

3.4.2.1.3 Educational qualification

It was operationally defined as the qualification of the respondents in terms of possession of bachelors degree, bachelors degree with diploma, post graduation and doctorate degree.

Pradeepkumar (1993) measured education by giving the additional score for every successful completion of formal education after S.S.L.C programme starting one score for S.S.L.C. fail and two score for S.S.L.C. pass. Any diploma or training more than three months in agriculture and allied fields were assigned an additional score of two along with their formal education score.

Kumar (2003) measured educational qualification by categorizing into bachelors degree, bachelors degree with diploma or certificate or both, post graduation and post graduation with diploma or certificate or both. The scoring pattern was 1,2,3 and 4 respectively.

In this study, scores were assigned based on the number of years normally required for successfully completing the study as shown below.

Category	Score
Bachelors degree	16
Bachelors degree with diploma	17
Post graduation	18
Doctorate degree	21

3.4.2.1.4 Subject specialization

Subject specialization was operationally defined as the specialization of the respondents in subjects like agriculture, veterinary, forestry, fisheries, agricultural engineering, cooperation and dairy science. The respondents were categorized as indicated below.

Category	Code
Agriculture	1
Veterinary	2
Forestry	3
Fisheries	4
Cooperation	5
Agricultural engineering	6
Dairy science	7

3.4.2.1.5 Annual income of the respondent

It was operationally defined as the earning of the respondent from all sources in a year. Sivaprasad (1997) measured the annual income of the respondents by grouping the respondents as above or below the mean.

The categorization followed in the present study was as follows.

Category	Score
Nil	1
<50,000	2
50,000-1,00,000	3
1,00,000-2,00,000	4
>2,00,000	5

3.4.2.1.6 Occupation

In the present study, it was operationally defined as the profession or employment of the respondent from which major source of income comes.

The categorization and scoring pattern followed by Anup (2003) to measure occupation was as follows.

Category	Code
Government servant	1
Private sector	2
Farmers	3
Business	4
Agricultural labourers	5
Jobless	6

The categorization of occupation of the respondent followed in this study is shown below.

Category	Code
Agribusiness	1
Government job- Permanent	2
Government job- Temporary	3
Private job	4
Nil	5

3.4.2.2 Socio psychological variables

3.4.2.2.1 Attitude towards self-employment

It was operationally defined as the degree of positive or negative affect of the respondent towards self-employment. In the present study, attitude towards self-employment was measured using the scale developed by Pradeepkumar (1993). The scale consists of ten statements. The respondents were asked to state their agreement or disagreement to each of the statement. The scale values of all the statements for which the respondents had given agreement were selected and after arranging it in ascending or descending order, the median value was taken which indicated the attitude score of the individual respondent.

3.4.2.2.2 Entrepreneurial ability

Entrepreneurial ability was operationally defined as the ability of the respondent to initiate and establish an economic activity. In this study, it was measured using an arbitrary scale developed for the study. The scale consists of six statements (five positive and one negative) to be rated on a four point continuum ranging from strongly agree to strongly disagree. The score assigned for positive statements ranges from 4,3,2,1 and being reversed for negative statements. The score obtained for each of the statement was summated to get the score of entrepreneurial ability. The possible score ranged from 6-24.

3.4.2.2.3 Managerial ability

It was operationally defined as the ability of the respondent to manage an enterprise in agribusiness with managerial functions. The variable was measured using an arbitrary scale developed for the study. Six statements were included which

consists of three positive statements and three negative statements and the responses were allocated on a four point continuum as indicated below.

Response	Score
Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1

The scoring was reversed as 1,2, 3 and 4 in case of negative statements. The total score of each respondent was worked out by summing up the scores on all the items. The possible score range was 6-24.

3.4.2.2.4 Self confidence

Self confidence was operationally defined as the belief of the respondents in their own abilities, initiative and zeal to achieve their goal or aim.

The variable was measured by using the arbitrary scale developed by Pandiaraj (1978) and followed by Parvathy (2000). The scale consists of eight items (three positive and five negative). The respondents were asked to give their responses in a four point continuum ranging from 'strongly agree' to 'strongly disagree'. The scoring procedure followed was as follows for positive statements and vice versa for negative statements.

Response	Score
Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1

The self confidence score for each individual was calculated by summing up the scores on individual statements. The possible score range of an individual was 8 -- 32.

3.4.2.2.5 Decision making ability

It was operationally defined as the ability of the respondents to select the most efficient means from among the available alternatives for achieving maximum economic profit.

Nandapurkar (1982) developed a scale to measure decision making ability that consists of ten items, and responses were collected in a three point continuum as not considered, considered after consultation with others and considered independently. In the present study, an arbitrary scale was prepared consisting of five statements (three positive and two negative) and the respondents were asked to give their response in a four point continuum and scoring procedure adopted was as follows.

Response	Score
Strongly agree	4
Agree	3
Disagree	2
Strongly disagree	1

The scoring was reversed for negative statements. The scores of all the statements were added to get the decision making ability score of each respondent. The possible score range was 6-24.

3.4.2.2.6 Information seeking behaviour

It refers to the extent to which the respondent is seeking information from different communication sources.

Sivaprasad (1997) measured information seeking behaviour using the arbitrary scale developed by Chandran (1989). The scale included all possible sources of information categorized under five headings viz. impersonal source, formal personal source, informal personal source, commercial source and other sources. The continuum has three response categories viz. regularly, occasionally and never with score of 2, 1 and 0 respectively.

In the present study the arbitrary scale developed by Deepa (1999) was used to find out the information seeking behaviour of the trainees. The respondents were asked to give response on a four point continuum, and the scoring procedure was as follows.

Frequency	Score
Regularly	4
Sometimes	3
Rarely	2
Never	1

The maximum possible score was 52 and the minimum possible score was 13.

3.4.2.2.7 Categorization of respondents based on socio psychological characteristics.

All the selected socio psychological variables, after working out the mean, were categorized into low and high group as follows.

Category	Score
High	\geq Mean
Low	$<$ Mean

3.4.2.3 Training variables

3.4.2.3.1 Perceived effectiveness of the training methods by the trainees

Anup (2003) measured the preference for method of training by asking the respondents to rate the various methods of training on a three point continuum ranging from most preferred to least preferred and the scoring procedure followed was mentioned below.

Category	Score
Most preferred	3
Somewhat preferred	2
Least preferred	1

Kumar (2003) measured the method of training preferred by the trainees by asking them to indicate the methods of training, which they considered suitable for each of the six major subject matter areas. Subsequently, training methods were ranked based on the frequencies with which they were reported.

In the present study, the training methods used for the agriclinics and agribusiness training programme was collected from the Central Training Institute of Kerala Agricultural University as secondary data. There were fourteen methods adopted in the training programme and the respondents were asked to check the extent of effectiveness of each method on a three point continuum as highly effective, effective, and not effective. The scores assigned were 3, 2 and 1 respectively. The data collected were analysed based on effectiveness index.

$$\text{Effectiveness index} = \frac{\text{Total score obtained}}{\text{Maximum possible score}} \times 100$$

3.4.2.3.2 Perception of the trainees regarding the trainer's effectiveness

Nimje *et al.* (1992) measured the performance of resource persons based on selected characteristics such as well prepared, practically sound, very good, impressive experience, talkative and convincing, while studying the perception of trainees about the national workshop.



Plate 1. A class room session of the training programme



Plate 2. A practical session



Plate 3. Trainees on a group discussion

In this study, the perceived effectiveness of the trainers was found by asking the trainee respondents to rate the effectiveness of the trainers on a two point scale as effective and not effective and the scores assigned were 2 and 1 respectively. Percentage analysis was used to find out the effectiveness of the trainers.

3.4.2.3.3 Utility of the content of the training programme as perceived by the trainees

Agrawal *et al.* (1993) while collecting the information about the utility of the subjects dealt in the workshop, measured it with the help of three point scale.viz. very useful, useful and not useful. The indices were worked out by computing the total utility score of each subject area and were ranked.

Bhalerao and Ayaskar (1999) measured the usefulness of the training programme in a three point continuum as very useful, useful and not useful.

Kumar and Dutt (2000) analysed the course content of the training by collecting responses of trainees in terms of utility, coverage and presentation and time period, each on a three-point continuum.

Sagar (2002) in order to know the usefulness of the course content, the topics and practicals conducted during the training were rated as perceived by the trainees on a three point continuum as most useful, useful and least useful. Individual and overall usefulness of the course content was studied using frequencies and percentages.

Here, the perception of trainees regarding the utility of the content was measured in a two point scale as useful and not useful with the score of 2 and 1

respectively. The course content of all the three training programmes conducted during the study period were pooled and considered for the study. The contents so collected were then categorized as topics on agribusiness, information technology, marketing management, orientation on specific enterprises, supporting agencies, project formulation and evaluation, case study, legal systems, trade in the context of globalization, entrepreneurial development and general topics. The data with regard to the utility of the training contents as perceived by the trainees were analyzed based on utility index, which was used to find out the usefulness of the course contents in each category.

$$\text{Utility index} = \frac{\text{Total score obtained}}{\text{Maximum possible score}} \times 100$$

3.4.2.3.4 Perception of trainers about the relevancy of the content of the training programme

To find out the perception of trainers about the relevancy of the content of the training programme, the course content of all the three training programmes were pooled and considered for the study. The course content was obtained as secondary data from the Central Training Institute of Kerala Agricultural University. The responses were collected from the selected trainers on a three point continuum as shown below.

Response	Score
More relevant	3
Relevant	2
Slightly relevant	1

For an individual topic, the maximum possible score was 90 and the minimum score was 30. The topics that are equal to or above the total score of 75 (Mean score of 2.5) were selected as the most relevant contents of agriclincs and agribusiness training programme.

3.4.2.4 Other related variables

3.4.2.4.1 Agriclincs and agribusiness centres established by the trainees

Information regarding the number and nature of agriclincs and agribusiness centres established by the trainees was collected using a direct question included in the questionnaire.

3.4.2.4.2 Constraints faced by the trainees in establishing agriclincs and agribusiness centres

In the present study, constraint was operationalised as problems experienced by the trainee respondents for establishing the agriclincs and agribusiness centres. In order to identify the constraints encountered, the following procedure was adopted.

A list of possible constraints that may hinder in establishing the centres was prepared after consulting with some non sample trainees. More possible constraints were added after review of literature and information available from different sources. Finally after discussing with agribusiness experts, important constraints were identified. The selected constraints were presented in the questionnaire and the respondents were asked to respond in a four point continuum as follows.

Response	Score
Very important	4
Important	3
Slightly important	2
Not important	1

The overall score for each constraint was worked out and the constraints were ranked accordingly.

3.4.2.4.3 Suggestions to improve the scheme on agriclinics and agribusiness centres

Suggestions of trainees to improve the agriclinics and agribusiness training programme were collected by including an open ended question in the questionnaire which consists of four aspects such as suggestions in the area of information support for agriclinics and agribusiness, suggestions related to hand holding facilities, suggestions to improve technical guidance, and suggestions for better loan facilities. Frequency was used to finalize the suggestions for the improvement of agriclinics and agribusiness training programme.

3.5 DATA COLLECTION

Keeping the objectives in mind, a draft questionnaire was prepared, circulated among experts and based on the discussion and suggestions of the experts, modifications were made wherever found necessary. The final questionnaire (Appendix II) was prepared with great care and attention in finalizing the wording and format of the questionnaire to eliminate mistakes and to avoid confusion and ambiguity regarding various items. The questionnaires were mailed to the selected respondents and they were asked to go through each item and give their honest, sincere and unbiased responses to each and every item in the questionnaire. They

were also requested to mail back the filled questionnaire to the researcher in the attached self addressed stamped envelope. Altogether ninety questionnaires (sixty trainees and thirty trainers) were considered for the study.

3.6.1 STATISTICAL TOOLS USED

The data collected from the respondents were scored, compiled and analyzed using the following statistical methods.

3.6.1 Kendall's co efficient of concordance

Kendall's co efficient of concordance was used to verify whether there is agreement among the judges in ranking the variables.

3.6.2 Percentage Analysis

Percentage distribution of respondents on all variables was worked out by dividing the frequency in each category with the total number of respondents and multiplying by hundred. It was done to make simple comparison wherever necessary.

3.6.3 Chi- square test

This was used to check whether there is any association between socio psychological variables and the perception of trainees about various aspects of the training programme.

3.6.4 't' test

't' test was used to find out whether there is any significant difference between two categories of respondents

Besides, the above mentioned statistical tools, mean, rank and index were also used for analysis.

RESULTS AND DISCUSSION

IV. RESULTS AND DISCUSSION

The findings of this study as per the methodology prescribed in the preceding chapter are presented with discussions under the following headings.

- 4.1 Profile of the trainees of agriclincs and agribusiness training programme
- 4.2 Perceived effectiveness of the training methods by the trainees
- 4.3 Perception of the trainees regarding the trainer's effectiveness
- 4.4 Utility of the content of the training programme as perceived by the trainees
- 4.5 Perception of trainers about the relevancy of the content of the training programme
- 4.6 Agriclincs and agribusiness centres established by the trainees
- 4.7 Socio psychological variables influencing the trainees in establishing agriclincs and agribusiness centres
- 4.8 Association between socio psychological variables and perception of trainees about the various aspects of the training programme
- 4.9 Constraints faced by the trainees in establishing agriclincs and agribusiness centres
- 4.10 Suggestions to improve the scheme on agriclincs and agribusiness centres.

4.1 PROFILE OF THE TRAINEES OF AGRICLINICS AND AGRIBUSINESS TRAINING PROGRAMME

The selected personal characteristics such as age, sex, educational qualification, marital status, subject specialization annual income, occupation and socio psychological characteristics such as attitude towards self employment, entrepreneurial ability, managerial ability, self confidence, decision making ability

and information seeking behaviour were analysed and the results with regard to the personal characteristics of the trainees are presented in Table 1.

Table 1. Personal characteristics of the trainees

n=60

SI.No.	Characteristics	Category	Number	Percentage
1	Age	<35years	55	92
		35-45years	3	5
		>45years	2	3
2	Sex	Male	51	85
		Female	9	15
3	Educational qualification	Undergraduate	21	35
		Postgraduate	33	55
		Doctorate level	6	10
4	Marital status	Married	16	27
		Unmarried	44	73
5	Subject specialisation	Agriculture	49	82
		Others	11	18
6	Annual income	Nil	23	38
		<50,000	3	5
		50,000-1,00,000	19	32
		1,00,000-2,00,000	12	20
		>2,00,000	3	5
	Occupation	Agribusiness	9	15
		Government job - Permanent	13	22
		Government job- Temporary	11	18
		Private job	9	15
		Nil	18	30

A cursory view of the results furnished in Table 1 revealed that majority of the respondents were young (92 per cent), five per cent were in the middle age group and two per cent of the trainees were old aged. It also brings to focus that most of the trainees, attended the training programme, were male (85 per cent) and only 15 per cent of the trainees were female. More than half of the trainees had their post graduate education, more than one third of them had under graduation and 10 per cent of the trainees had doctoral degree. Regarding the marital status of the trainees, it shows that about three fourth of the trainees were unmarried and the remaining trainees (27 per cent) were married. With regard to specialization of subjects, majority of the trainees (82 per cent) were agricultural graduates and 18 per cent of the trainees had their subject specialization in allied sectors like fisheries, veterinary, co-operation and banking. It further highlights that more than one third of the trainees (38 per cent) had no income, 32 per cent of them were in the income group of 50,000 to 1,00,000, 20 per cent of the respondents were in the income group of 1,00,000 to 2,00,000 and five per cent each in the income group of 2,00,000 and less than 50,000. Table 1 also reveals that 30 per cent of the trainees had no occupation. In short, it can be inferred from Table 1 that most of the trainees were young, unmarried, male and unemployed agricultural graduates having income of less than 50,000.

The socio psychological profile of the respondents, based on the data collected is picturised in Table 2.

Table 2. Socio psychological characteristics of the trainees n – 60

Sl.No.	Characteristics	Category	Number	Percentage
1	Attitude towards self employment	≥ Mean	44	73
		< Mean	16	27
2	Entrepreneurial ability	≥ Mean	24	40
		< Mean	36	60
3	Managerial ability	≥ Mean	29	48
		< Mean	31	52
4	Self confidence	≥ Mean	33	55
		< Mean	27	45
5	Decision making ability	≥ Mean	19	32
		< Mean	41	68
6	Information seeking behaviour	≥ Mean	40	67
		< Mean	20	33

A perusal of Table 2 indicates that majority of the trainees had more favourable attitude towards self employment (73 per cent), more self confidence (55 per cent), high information seeking behaviour (67 per cent) whereas the trainees were having less entrepreneurial ability (60 per cent), low managerial ability (52 per cent) and low decision making ability (68 per cent). The socio psychological characteristics such as self confidence and information seeking behaviour were high as these characteristics could be modified through rigorous training programme, and by visiting the successful entrepreneurs in the field, the trainees might have more favourable attitude towards self employment. The remaining socio psychological characteristics such as entrepreneurial ability, managerial ability and decision making ability were low might be due to the reason that mostly graduates fresh from colleges were exposed to theoretical knowledge and they are in the process of equipping themselves in practicing the business. Hence the low level of entrepreneurial ability, managerial ability and decision making ability.

4.2 PERCEIVED EFFECTIVENESS OF THE TRAINING METHODS BY THE TRAINEES

If curriculum is the “heart” of the training programme, training methods could be described as “arteries” and “veins” of the training system, through which training message reaches the trainees, and the trainers receive concurrent feedback from the trainees. The choice of appropriate methods of training is dependent on subject matter, knowledge level of trainees, time availability, interest of organizers and trainers and also the facilities available. The informal evaluation and interest of the trainees also contribute to the decision on training methods. However, the perspective of trainees is of prime importance in the conduct of any training programme. A systematic study is necessary to unearth the perspective of the trainees about the different methods of training. For this an inventory of selected training methods was prepared from the Central Training Institute, Mannuthy, Thrissur and the opinion expressed by the respondents were arranged according to the perceived effectiveness of the training methods in Table 3.



Plate 4. Study tour as part of the training

Table 3. Perceived effectiveness of the training methods

n = 60

SI.No.	Methods	Effectiveness index
1	Field trips	92.4
2	Study tour	89.5
3	Talks by successful entrepreneurs	88.9
4	Lecture with LCD projection	78.9
5	Project formulation exercise	77.8
6	Video conferencing	77.2
7	Discussion after specialist talk	76.6
8	Demonstration	75.4
9	Lecture with other audio visual aids	73.1
10	Group discussion	71.9
11	Brain storming	66.7
12	Extempore talk	65.5
13	Video cassettes	64.3
14	Lecture	61.4

As depicted by Table 3, field trips was perceived by the trainees to be the most effective method over other methods. The methods like study tour and talks by successful entrepreneurs were also highly effective, as opined by the trainees. The other methods like lecture with LCD projection, project formulation exercise, video conferencing, discussion after specialist talk, demonstration, lecture with other audio visual aids, group discussion, brain storming, extempore talk, video cassettes and lecture were presented in sequential order as preferred by the trainees considering their utility and acceptability.

The high preference for field trips might be because it is based on the principle of "seeing is believing" and it exposes the trainees to new and different situations, which shall help them in changing their outlook, and widen their mental horizon. It also



Plate 5. 'Seeing is believing'- participants on a field visit

inculcates a spirit of competition among the trainees by showing what others have been able to achieve. Also, it provides an opportunity for the trainees to interact with the successful entrepreneurs and trainees gain first hand knowledge about the enterprises and were stimulated to action. Since lecture involves a passive role of the trainees and is more theoretical, it was the least preferred method by the trainees. This is contrary to the findings of Murthy and Rao (1990) that showed high preference of lecture method among horticultural trainees.

4.3 PERCEPTION OF THE TRAINEES REGARDING THE TRAINER'S EFFECTIVENESS

An attempt was made in the present study to know the perception of the trainees regarding the trainer's effectiveness and the results obtained are presented in Table 4.

Table 4. Perception of the trainees regarding the trainers effectiveness

n = 60

SN	Trainer's effectiveness	(%) of trainee respondents
1	Effective	97.5
2	Not effective	2.5

As revealed by Table 4, 97.5 per cent of the trainees perceived that the trainers were effective, while 2.5 per cent of the trainees perceived that the trainers were not effective. Hence, it is clear that most of the selected resource persons had sound knowledge and they were experts on their topic, which might have made the majority of the trainees to rate the trainers as effective. This indicates that the resource persons selected have delivered "goods" to the expected standard.



Plate 6. A class room session

4.4 UTILITY OF THE CONTENT OF THE TRAINING PROGRAMME AS PERCEIVED BY THE TRAINEES

Though several aspects add to the total effect of a training programme, the utility of the course content to the trainees is the most important, and hence the course content is the backbone of any training programme. The systematic evaluation of the course content of agriclinics and agribusiness training programme had not been conducted, except the overall feed back during the post training discussions. Keeping in mind the changes over time, there was a need to evaluate the course content of the agriclinics and agribusiness training programme in order to make the training more effective. Hence, an attempt was made in the present study to find out the perception of trainees regarding utility of the contents of the training programme. The perceived utility of the training content in each category viz., agribusiness, information technology, marketing management, orientation on specific enterprises, supporting agencies, project formulation and evaluation, case study, legal systems, trade in the context of globalization, entrepreneurial development and general topics is presented in separate tables.

Table 5. Utility of the topics related to agribusiness

n=60

SI.No.	Content	Utility index
1	Agribusiness development and analysis of opportunities	100
2	Components and characteristics of small business	93.8
3	Scope of agribusiness, status, present role and future prospects	90
4	Managing small business	90
5	Decision making analysis in small agribusiness	90

Among the contents on agribusiness, the topic "Agribusiness development and analysis of opportunities" was found to be the most useful as perceived by the trainees. It could be inferred from Table 5 that importance has to be given on

small business since most of the topics related to small business were perceived to be useful by the trainees. This might be due to the fact that in a state like Kerala where the unemployment rate is so high compared to the availability of resources, small business ventures are an alternative form of employment. Further small business is one, which is independently owned and operated. Also entrepreneur can make all the choices and decisions within the limits of the resources under their command.

Table 6. Utility of the contents on information technology n = 60

Sl.No.	Content	Utility index
1	Role of IT in agribusiness	100
2	e-commerce: Its scope and local applications	100
3	MS Windows, MS Office	97.5
4	Agricultural portals, existing agricultural MIS and allied systems	92.5

Table 6 shows that “Role of IT in agribusiness” and “Scope and local applications of e- commerce” were the most useful topics for the trainees in the area of information technology. It is natural that access to a world wide, integrated services (data, voice and video) communication network has become critical in the conduct of present day agribusiness. Search for more efficient ways of doing business has led to a new revolution in commerce i.e. e- commerce which is the application of new technologies, particularly internet and web to help individuals, business and other organizations to conduct business better. Further electronic commerce helps to increase sales with low cost. Also, enquiries from customers about products, their features, availability, conditions of delivery etc., could be handled easily in online environment with minimum costs. Products and services can be made even in remote areas.

Table 7. Utility of the topics on marketing management

n=60

SI.No.	Content	Utility index
1	Market planning and market competition	100
2	Brands, packaging, product features	100
3	Advertising and its impact	100
4	Sales promotion activities	100
5	Pesticides marketing: problems and prospects	100
6	Introduction to marketing, principles, concepts	95
7	Rural marketing – problems and prospects	95

In marketing management, the topics such as “Market planning and market competition; Brands, packaging, product features; Advertising and its impact; Sales promotion activities and Problems and prospects of Pesticides marketing” were highly useful as perceived by the trainees. It might be due to the following reason: One is in business because there are customers for his product or service. If he wants to continue in business, he must continue to meet, through his product or service the need or want of his customers. Marketing is the process of providing the right product of the right quality, in the right quantity in the right price, at the right time and at the right place. Market planning explains a systematic and disciplined exercise to formulate strategies to achieve the goals. Advertising aims at persuading the customers to adopt a favourable attitude towards the product or service. Sales promotion deals with indirect advertising programme to get quick results and has short term effect for increasing sales. So, the aforesaid topics were perceived to be highly useful by the trainees to establish their business successfully.

Table 8. Utility of orientation on specific enterprises

n=60

SI.No.	Content	Utility index
1	Commercial production of cut flowers and dry flowers	100
2	Bio process in value addition on agro products	100
3	Composting techniques	100
4	Setting up of fruit and vegetable processing units	97.5
5	Appropriate post harvest technology with commercial prospects in Kerala	97.5
6	Mushroom – prospects for agriclincs and agribusiness	95
7	New frontiers in coconut processing technology	90

In orientation on specific enterprises, topics such as “Commercial production of cut flowers and dry flowers; Bio process in value addition on agro products; and Composting techniques” were found to be the most useful topics for the trainees. The result shows that, trainees were more interested to have in depth knowledge about specific enterprises rather than getting a superficial idea about various enterprises.

Table 9. Utility of contents related to supporting agencies

n=60

SI.No.	Content	Utility index
1	Schemes of the National Horticulture Board	100
2	Crop and Animal Insurance – Implications for agri business	100
3	Activities and role of Small Farmers Agribusiness Consortium (SFAC) in supporting agribusiness	97.5
4	Role of Small Industries Service Institute (SISI) in the development of small-scale industries with special reference to agribusiness	92.5
5	Role of District Industries Centre in facilitating entrepreneurs	90

Under supporting agencies,” Schemes of the National Horticulture Board, and Implications for agribusiness of crop and animal insurance” were found to be the most useful contents for the trainees. Since it was necessary for them to know about various policies of different supporting agencies and also about the crop insurance, coverage and financial support in the event of failure of crops as a result of natural calamities, pests and diseases which will be helpful to stabilize farm income particularly in disaster years, the trainees were interested in learning the topics. So they preferred these subject areas so that they could find better agribusiness awareness in the current situation as to exploit the opportunities.

Table 10. Utility of project formulation and evaluation n=60

SI.No.	Content	Utility index
1	Various aspects of project preparation	100
2	Procedure for applying for a loan and how bankers will evaluate a project proposal	100
3	Project Formulation: A bankers perspective	92.5

In project formulation and evaluation, “Various aspects of project preparation and Procedure for applying for a loan and how bankers will evaluate a project proposal” were the most useful topics. Since these topics throw light on various phases of project cycle such as identification, formulation, appraisal, implementation, operation and evaluation of a project, these topics will naturally be useful for them. The trainees have to know the procedure for applying for a loan and how bankers evaluate a project proposal, to prepare a viable project both for availing the facilities from banks for their agribusiness and to be a consultant in preparing plan for agencies and thereby establishing a consultancy service.

Table 11. Utility of case studies n=60

SI.No.	Content	Utility index
1	Case Study: ABARD SAIU on medicinal plants	100

As shown by Table 11, “Case study: ABARD SAIU on medicinal plants” was found to be the most useful to the trainees. It might be due to the fact that case study helped them to develop the habit of taking more factors into account than they usually do, analyze them carefully and put them together into an integrated picture to guide understanding and action.

Table 12. Utility of legal topics n=60

SI.No.	Content	Utility index
1	Insecticide act / rules and its implications for agribusiness	100
2	Fertiliser control order	92.5
3	Quarantine implications for agribusiness	95
4	Implications of partnership act and taxation laws on agribusiness with special reference to sole tradership and firms	95

“Insecticide act / rules and its implications for agribusiness” was the most useful topic under legal systems as perceived by the trainees. The reason might be that it is necessary for them to know the act, rules, procedures with implications related to the production, storage, distribution and sales of insecticides and pesticides as they are highly poisonous, not only to deal with it but to give expert advice to farmers and other agencies.

Table 13. Utility of contents related to trade in the context of globalisation n=60

SI.No.	Content	Utility index
1	Importance of marketing in the context of globalisation and privatization	100
2	Intellectual Property Rights (IPR) and related issues: implications for agripreneurs	96.2
3	Threats and opportunities in the agricultural sector in the context of globalisation	92.5

As depicted by Table 13, “Importance of marketing in the context of globalisation and privatization” was the most useful topic to the trainees because the trainees wanted to be well versed in this era of globalisation about various issues in WTO, as globalisation is the order of the day in marketing the commodities. It is natural that the trainees liked to have more knowledge about the trade so that their business establishment could be widened and expanded by observing all rules, regulations and procedures to be adopted at International market.

Table 14. Utility of topics on entrepreneurial development n=60

SI.No.	Content	Utility index
1	What do bankers expect from entrepreneurs?	100
2	Interview with successful entrepreneurs	97.5
3	Entrepreneurial competencies	95
4	Entrepreneurial development lab	92.5
5	Living habits of entrepreneurs	92.5
6	Motivation for entrepreneurs	90

In entrepreneurial development, “What do bankers expect from entrepreneurs?” was found to be the most useful topic for the trainees. It is reasonable that, on the part of the trainees, they should know about the attitude of bankers in getting loan sanctioned, repaying the loans in stipulated time and procedure involved and also other such aspects in getting financial support from the banks. Interview with successful entrepreneurs, entrepreneurial competencies, entrepreneurial development lab, living habits of entrepreneurs and motivation of entrepreneurs were found to be useful for the trainees which might be due to the reason that it gives a chance to increase their self confidence, boost up their inner potentials and also to create a positive attitude towards self employment.

Table 15. Utility of general topics

		n=60
Sl.No.	Content	Utility index
1	Management in practice	92.5
2	Certification of organic products	95

As shown in Table 15, among the general topics (i.e. other than the topics coming under the previously mentioned categories), “Management in practice and Certification of organic products” were found to be useful to the trainees.

Hence with regard to the utility of the content of the agrilicines and agribusiness training programme, it can be concluded that the topics such as Agribusiness development, analysis of opportunities; Role of IT in Agribusiness; Scope and local applications of e-commerce; Market planning and market competition; Brands, packaging, product features; Advertising and its impact; Sales promotion activities; Problems and prospects of pesticides marketing; **Commercial production of cut flowers and dry flowers; Bio process in value addition on agro produce; Composting techniques; Schemes of the National Horticulture Board; Implications of crop and animal insurance on agribusiness; Case Study of ABARD SAIU on Medicinal Plants; Importance of marketing in the context of globalisation and privatization and What do bankers expect from entrepreneurs?** were found to be the most useful topics for the trainees as all the respondents had rated these topics as useful. However, many other topics were also perceived to be useful, by the trainees, as discussed earlier.

The results in this regard show that majority of the topics were found to be useful for the trainees, which indicates that course content of agrilinic and agribusiness training programme of Central Training Institute of Kerala Agricultural University was very much able to fulfill the requirement of entrepreneurship qualities among young, unemployed agriculture graduates in the area of agriculture and allied sectors. However there is always scope for



Plate 7. Concluding session - address by an expert from NABARD



Plate 8. Issue of certificates

improvement. So for making the training much more effective, importance may be given to areas such as orientation on specific enterprises and marketing management since all the trainee respondents had rated most of the topics in such areas as useful to them. Hence, it could be concluded that the trainees were in need of gaining indepth knowledge on specific enterprise and also more marketing skills. This is in par with the findings of Sagar (2002).

4.5 PERCEPTION OF TRAINERS ABOUT THE RELEVANCY OF THE CONTENT OF THE TRAINING PROGRAMME

The information collected with regard to the relevancy of topics covered in the training programme as perceived by the trainers was subjected to analysis and the results are furnished in Table 16.

Table 16. Relevancy of the content of the training programme as perceived by the trainers. n=30

SI.No.	Content	Total score*
1	Scope of agribusiness, status, present role and future prospects	86
2	Interview with successful entrepreneurs	81
3	Marketing Channels	80
4	Managing small business	79
5	Importance of marketing in the context of globalisation and privatization	78
6	Components and characteristics of small business	77
7	Setting up of fruit and vegetable processing units	77
8	Decision making analysis in small agribusiness	76
9	Mushroom – prospects for agriliclinics and agribusiness	76
10	Threats and opportunities in the agricultural Sector in the context of globalisation	76
11	New frontiers in coconut processing technology	76
12	Special features of agricultural input marketing	75
13	Brands, packaging, product features	75
14	Consumer behaviour	75

* Possible score ranges from 30 - 90

It could be noted from Table 16 that the trainers gave emphasis on areas like marketing, small business and orientation on specific enterprises which is similar to the perception of trainees regarding the content of agriliclinic and agribusiness training programme. Further it could be observed that both the trainees and trainer respondents perceived most of the topics as useful and relevant respectively. So, it could be inferred that the course content of agriliclinic and agribusiness training programme was well selected and formulated in accordance with the needs of the trainees and the objectives of the scheme.



Plate 9. Prospective entrepreneurs with the organisers of the training

4.6 AGRICLINICS AND AGRIBUSINESS CENTRES ESTABLISHED BY THE TRAINEES

The most important aspect which reflects the effectiveness of agriclincs and agribusiness training programme as well as the scheme is the number of agriclincs and agribusiness centres established by the trainees. The data in this regard are presented in Table 17.

Table 17. Agriclincs and agribusiness centres established by the trainees

SI.No.	Nature of agri business	Number of trainees
1	Plant Nursery	1
2	Aquarium of ornamental Fish	1
3	Agri / Horti Consultancy Services	6
4	Hatchery (poultry)	1
5	Commercial cultivation of Vegetables / Vanilla	2
	Total	11

It is evident from Table 17, that there were five types of business started by the trainees such as plant nursery, aquarium of ornamental fish, agri / horti consultancy services, hatchery and commercial cultivation of vegetables / vanilla. Among the sixty trainee respondents, only nine trainees started agriclincs and agribusiness centres. Though only nine trainees started enterprises, two of them initiated two types of activities simultaneously, thus the total number of agriclincs and agribusiness centres was eleven. The reason for more number of agri / horti consultancy services might be the low initial investment and less risk involved when compared to other types of income generating activities.

In this regard, a detailed analysis has been made so as to know the post training occupational status of the trainees, though this has been glanced as part of

the profile of the trainees. The post training occupational status of the trainees at the time of the study is depicted in Table 18.

Table 18. Post training employment status of trainees n=60

SI.No	Occupation	Male		Female		Total	
		Number	Percentage	Number	Percentage	Number	Percentage
1	Agribusiness	8	13	1	2	9	15
2	Government job						
	Permanent	12	20	1	2	13	22
	Temporary	9	15	2	3	11	18
3	Private job	8	13	1	2	9	15
4	Higher studies	12	20	2	3	14	23
5	Planning for agribusiness	2	3	2	3	4	7
	Total	51	85.00	9	15	60	100

A birds eye view of Table 18 shows that 15 per cent of the trainees were doing agribusiness (13 per cent male and two per cent female) after the agriclinics and agribusiness training programme, whereas seven per cent of them were planning to establish their agribusiness. Majority of the trainees (55 per cent) were employed either permanently or temporarily in government sector or private sector (48 per cent males and seven per cent females). Moreover 23 per cent of the trainees went for higher studies (20 per cent male and three per cent female). Thus the major share of the trainees were either employed temporarily or permanently, or doing higher studies. This might be the reason for not establishing agriclinics and agribusiness centres by many of the trainees. So importance has to be given in the pre training stage in selecting appropriate graduates who have atleast the intention of starting new business enterprises. It is to be noted that even though the government is encouraging and motivating the unemployed agricultural

graduates in selecting self employment through various activities, the youngsters are not prepared to take risk in establishing the business, as they have no property for a collateral security. Moreover, the job security in government jobs acts as an added attribute to try for the government job.

4.7 SOCIO PSYCHOLOGICAL VARIABLES INFLUENCING THE TRAINEES IN ESTABLISHING AGRICLINICS AND AGRIBUSINESS CENTRES

Table 19 unfolds one of the main purposes of the present research: To investigate the factors influencing the trainees in establishing agriclincs and **agribusiness centres**.

Table 19. Socio psychological variables influencing the trainees in establishing agriclincs and agribusiness centres n=60

SI.No.	Variables	t value	Mean score	
			Started	Not started
1	Attitude towards self employment	2.13**	5.65	5.49
2	Entrepreneurial ability	2.60**	20.89	18.96
3	Managerial ability	0.76	19.11	18.43
4	Self confidence	1.89*	26.22	23.94
5	Decision making ability	1.05	14.89	14.09
6	Information seeking behaviour	0.01	37.22	37.18

* significant at 1% level

** significant at 5% level

A critical look at Table 19 reveals that the factors such as attitude towards self-employment and entrepreneurial ability were significant at 1 percent level of probability, and self-confidence was found to be significant at 5 percent level of probability. Though all the respondents were more or less equally qualified.

attributes such as positive attitude towards self employment, high entrepreneurial ability, and strong belief in self and one's own abilities to face stiff competition in the society might have intrinsically motivated them to start agriclincs and agribusiness centres. Further, self confidence might have boosted up their inner potentials and leadership qualities so as to convince others, without which starting and running an enterprise successfully would only be a day dream. This is in line with the findings of Supriya and Srinath (2003), Rajendran (2003) and Jyothi (2003).

Hence it is suggested, in any entrepreneurship development training programme, to give stress to create a highly favourable attitude towards self employment, to develop the entrepreneurial ability and to boost up the self confidence of trainees which will in turn influence the trainees to establish enterprises or business. In this sense, the agriclincs and agribusiness training programme under the present study has succeeded in creating a favourable attitude towards self employment and increasing the self confidence of the trainees as disclosed by Table 2.

4.7.1 Comparison between male and female respondents with respect to socio psychological variables

Table 20 shows the comparison between male and female respondents with respect to socio psychological variables.

Table 20. Difference between male and female respondents with respect to socio psychological variables. n=60

SI.No.	Variables	t value	Mean score	
			Male	Female
1	Attitude towards self employment	2.45**	5.49	5.64
2	Entrepreneurial ability	0.46	19.29	19
3	Managerial ability	1.06	18.66	17.77
4	Self confidence	1.31	24.58	22.56
5	Decision making ability	1.74*	14.31	13.62
6	Information seeking behaviour	2.37**	42	36.33

From Table 20, it could be seen that the factors such as attitude towards self employment, decision making ability and information seeking behaviour were found to be significant. It shows that there was significant difference between the male and female trainees with regard to these characteristics. It is quite interesting to note that though the female respondents had low decision making ability and information seeking behaviour, they had more positive attitude towards self employment when compared to male respondents. More positive attitude towards self employment of women when compared to male respondents might be due to the reason that women graduates have to consider income generation after marriage, probably while living at their husband's home. This might be the reason why women are more positively oriented to self employment when men may be more inclined to take up a more secured non self employment option. Hence, the findings indicates that female respondents might be encouraged to make their own decisions, and their information seeking behaviour to be enhanced in the training programme. For male respondents, importance may be given to develop more positive attitude towards self employment which is essential for the establishment of agriclinics and agribusiness centres.

4.8 ASSOCIATION BETWEEN SOCIO PSYCHOLOGICAL VARIABLES AND PERCEPTION OF TRAINEES ABOUT THE VARJIOUS ASPECTS OF THE TRAINING PROGRAMME

Though attention had been paid by the organisers in evaluating the perception of trainees about different components of the training programme, no systematic attempt was made to find out the association between the socio psychological variables and the perception of trainees about various components of the training programme. Hence in this study, the association between the selected socio psychological variables and the perception of trainees about the various aspects of the training programme such as trainer's effectiveness, utility of the content of the training programme, and the effectiveness of training methods used in the training programme was carried out and the results are presented here.

4.8.1 Association between socio psychological variables and perception of trainees about the trainer's effectiveness

The results of the chi square analysis of association between socio psychological variables and perception of trainees about the trainer's effectiveness are shown in Table 21.

Table 21. Association between socio psychological variables and perception of trainees about the trainer's effectiveness n=60

SI.No.	Variables	Chi square value
1	Attitude towards self employment	0.41
2	Entrepreneurial ability	5.12*
3	Managerial ability	2.07
4	Self confidence	0.88
5	Decision making ability	9.66*
6	Information seeking behaviour	0.01

The chi square analysis revealed that (Table 21) there was significant association between socio psychological variables viz., entrepreneurial ability and decision making ability with the perception of trainees about the trainers effectiveness. The other socio psychological variables were found to have non-significant association with the perception.

4.8.2 Association between socio psychological variables and perception of trainees about the utility of the training content

To find out the association between socio psychological variables and perception of trainees about the utility of the content of the training programme chi square values were worked out and the results are furnished in Table 22.

Table 22. Association between socio psychological variables and perception of trainees about the utility of the training content n=60

Sl.No.	Variables	Chi square value
1	Attitude towards self employment	0.14
2	Entrepreneurial ability	6.33*
3	Managerial ability	2.88
4	Self confidence	1.45
5	Decision making ability	11.26*
6	Information seeking behaviour	0.03

From Table 22, it could be observed that that there was significant association between socio psychological variables such as entrepreneurial ability and decision making ability with the perception of trainees about the utility of the content of the training programme, thus showing a similar association as in the case of trainers effectiveness.

4.8.3 Association between socio psychological variables and perception of trainees about the effectiveness of the training methods used.

The results of association between socio psychological variables and perception of trainees about the effectiveness of training methods used in the training programme are depicted in Table 23.

Table 23. Association between socio psychological variables and perception of trainees about the effectiveness of training methods used n=60

SI.No.	Variables	Chi square value
1	Attitude towards self employment	4.27*
2	Entrepreneurial ability	1.04
3	Managerial ability	0.02
4	Self confidence	0.16
5	Decision making ability	3.72
6	Information seeking behaviour	2.23

It could be seen from Table 23, that the chi square value was significant to show that there was significant association between attitude towards self employment with the perception of trainees about the effectiveness of the training methods, whereas all the other socio psychological variables were found to be non significant.

It can be concluded from Table 21, 22 and 23 that the trainees having more favourable attitude towards self employment, high entrepreneurial ability and decision making ability have perceived the agriclinics and agribusiness training programme as effective when compared to other trainee respondents. So, if the selection of trainees was made based on the above three socio psychological characteristics such as positive attitude towards self employment, high

entrepreneurial ability and decision making ability, the training programme could be made more effective.

4.9 CONSTRAINTS FACED BY THE TRAINEES IN ESTABLISHING AGRICLINICS AND AGRIBUSINESS CENTRES

Nobody in this world can claim himself problem free. Problems will emanate as stumbling blocks in life. This is quite expected when it comes to starting of any enterprise. The problems are many, and to find a suitable, stable, meaningful, economically viable, technically feasible, environmentally safe, socially desirable, acceptable and lasting solution is the task assigned to every researcher. In this context, specialized attention was focused on the problems arising in starting and establishing agriclinics and agribusiness units. The results are presented in Table 24.

Table 24. Constraints faced by the trainees in establishing the agriclinics and agribusiness centres

n=60

SI.No.	Constraints	Rank
1	Availability of credit facilities on time	I
2	Cumbersome process in getting loan sanctioned	II
3	Availability of matching grant for availing credit	III
4	Availability of market facilities	IV
5	Insecurity	V
6	High initial investment for the establishment of business	VI
7	Constant need of finance	VII
8	Labour problems	VII
9	Inadequate experience about new business	VIII

It is evident from Table 24 that the most important constraint was the availability of credit facilities on time. The second and third ranks were accorded to cumbersome process in getting loan sanctioned and availability of matching

grant for availing credit respectively. The fourth rank was awarded to availability of market facilities. It can be inferred from Table 24 that most of the constraints experienced by the trainees were financial constraints. One of the foremost problems of any entrepreneur is finance. Availability of adequate finance at reasonable cost at the required time was the need and expectation of the trainees. Financial institutions, while lending, looked into the repaying capacity, purpose of loan, good tangible security and strict adherence to the terms and conditions of loans by the trainees. During the course of study it was also observed that though the organized sector is charging low rate of interest, the complicated procedure of getting bank loans deter many trainees in venturing into new projects. Since majority of the trainees were young, unemployed agricultural graduates, they were unable to produce collateral security on loans. All these emphasize the need for attitudinal changes on the part of the financial institutions in its lending practices to face the challenges of the new millennium. The constraints identified were an eye opener for the organizers to schedule or restructure the scheme on agriclincs and agribusiness centres in future by rectifying the difficulties experienced by the trainees. This got the support of the findings of Borse and Sawant (2002).

4.10 SUGGESTIONS TO IMPROVE THE SCHEME ON AGRICLINICS AGRIBUSINESS CENTRES.

Suggestions elicited from the trainees during the course of the study for the improvement of the scheme on agriclincs and agribusiness centres were categorized into four types viz., Information support for agriclincs and agribusiness, hand holding facilities, technical guidance and loan facilities. The suggestions of the trainees in these areas are given under separate headings.

4.10.1 Information support for agrilclinic and agribusiness

1. Provide the students with some important website address and e-mail i.d of subject experts.
2. Information on market fluctuation
3. Start of technology information cell to avail latest technologies.
4. Help the trainees in updating technologies and knowledge. e- linkage to be developed.

4.10.2 Hand holding Facilities

1. Potential candidates who are serious about new enterprise should be helped during various stages of starting up of the enterprises.
2. Follow up seminars and workshops
3. Market the products of agripreneurs through government or public sector outlets.
4. Market the agrilclinics and agribusiness centers through government media

4.10.3 Technical guidance

1. Make available some experts as advisors for a considerable period to start the enterprise
2. In one specialized area technical guidance has to be given thoroughly
3. Frequent meetings with the experts in the concerned field

3.10.4 Loan facilities

1. The funding agency should believe the young people to start new venture and provide suitable facilities to them.
2. Reducing the interest rate on loans
3. Margin money assistance.

4. Make avail loans to the trainee through the training institutions.
5. Loan applications must be processed on a fast track basis.
6. A tie up with the banks by the trainers can help the prospective agripreneurs to have an initial push to their projects
7. More repayment time should be given for loans, since even after gestation period, the business will take some time to flourish.
8. Bank should be ready to give credit, without a collateral security for the assets of the will power and educational qualification of the trainees.

It is therefore, for the planners and policy makers involved in agripreneurs development, to take these results and suggestions into their pragmatic consideration for further improvement so that it would lead to the growth of agripreneurs in our country. The promotional institution should be so strong that it should be capable of pursuing the young agricultural graduates to the field of entrepreneurship, and the belief that good "entrepreneurs are not born but made" should be proved by the trainees.

SUMMARY

V.SUMMARY

The Ministry of Agriculture, Government of India, in association with National Bank for Agriculture and Rural Development (NABARD), Small Farmers Agribusiness Consortium (SFAC) and National Institute of Agricultural Extension Management (MANAGE) has launched a unique programme of "Agriclinics and Agribusiness Centres Scheme" to take better methods of farming to each and every farmer across the country. Agriclinics are those which provide expert services and advice to farmers on cropping practices, technology dissemination, crop protection from pest and diseases, market trends and prices of various crops in the market, clinical services for animal health and the like which would enhance productivity of crops or animals. Agribusiness centres are those which includes all those business and management activities performed by firms that provide inputs to the farm sector, produce farm products and process, transport, finance, handle or market farm products. Agricultural graduates rolled out by the agricultural universities are proposed to get self employment through these clinics which depends upon the effective implementation of agriclinics and agribusiness training programme. The present study was an attempt in this direction with the following specific objectives.

1. To evaluate the training content and methodology of the agriclinics and agribusiness training programme organized in Kerala by Kerala Agricultural University.
2. To analyse the trainees profile
3. To assess the establishment of agriclinics and agribusiness centres by the trainees
4. To study the constraints, if any, faced by the trainees in establishing the centres and
5. To suggest suitable measures to streamline the training and the scheme on agriclinics and agribusiness.

The study was conducted in Kerala state. Sixty trainees of agriclinics and agribusiness training programme organized by Kerala Agricultural University were the major category of respondents of the study. The period under study was from May 2002 to October 2003. During this period, there were three batches comprising a total of 87 trainees. From each batch, 20 persons were selected randomly and thus a total of 60 trainees constituted the major respondents of the study. The study also aimed to identify the perception of trainers regarding the relevancy of the content of the training programme. For this, 30 trainers who had handled sessions in the agriclinics and agribusiness training programme during the study period were purposively selected. Based on review of literature and discussion with experts, the following personal variables viz., age, sex, educational qualification, marital status, subject specialization, annual income and occupation that are relevant for the study were selected. The socio psychological variables such as attitude towards self employment, entrepreneurial ability, managerial ability, self confidence, decision making ability and information seeking behaviour were selected through judges rating, to identify the factors influencing the trainees in establishing the centres. Keeping the objectives in view, the training variables such as perceived effectiveness of the training methods by the trainees, perception of the trainees regarding the trainer's effectiveness, utility of the content of the training programme as perceived by the trainees and perception of trainers about the relevancy of the content of the training programme were selected for the study. To make the study much more effective, other related variables selected were agriclinics and agribusiness centres established by the trainees, constraints faced by the trainees in establishing agriclinics and agribusiness centres and suggestions to improve the agriclinics and agribusiness scheme. A well structured mailed questionnaire was used for data collection. Statistical tools such as percentage analysis, chi- square test, 't' test and Kendall's co efficient of concordance.

The findings drawn from the analysis are summarized below.

1. Majority of the respondents were from young age category (92 per cent) and male (85 per cent). Eighty two per cent of them were agricultural graduates. Majority of the respondents (73 per cent) were unmarried.
2. Regarding educational qualification, 55 per cent of the trainees had post graduation, 35 percent of them had under graduation, 10 percent of them had doctoral degree.
3. Majority of the respondents had more positive attitude towards self employment (73 per cent), high information seeking behaviour (67 percent), more self confidence (55 per cent), less entrepreneurial ability (60 per cent), low managerial ability (52 per cent) and low decision making ability (68 per cent).
4. Based on the perception of the trainees, field trips were found to be the most effective training method over other methods followed by methods like study tour and talks by successful entrepreneurs.
5. Regarding trainer's effectiveness 97.5 per cent of the trainees perceived that the trainers were effective.
6. Regarding the utility of the content of the training programme as perceived by the trainees the topics such as Agribusiness development, analysis of opportunities; Role of IT in Agribusiness; Scope and local applications of e-Commerce; Market planning and market competition; Brands. packaging, product features; Advertising and its impact; Sales promotion activities; Problems and prospects of pesticides marketing; Commercial production of cut flowers and dry flowers; Bio process in value addition on agro produce; Composting techniques; Schemes of the National Horticulture Board; Crop and animal insurance – Implications for agri business; Case Study: ABARD SAIU on Medicinal Plants; Importance of marketing in the context of globalisation and privatization and What do bankers expect from entrepreneurs? were found to be the most useful topics for the trainees.

7. Relevancy of the content of the training programme as perceived by the trainers showed that emphasis should be given to the areas like marketing, small business and orientation on specific enterprises.
8. Among the sixty trainee respondents, only nine trainees started agriliclinics and agribusiness centres.
9. With regards to the nature and number of agriliclinics and agribusiness centres established by the trainees, there were five types of business started by the trainees such as plant nursery, ornamental fish aquarium, consultancies, hatchery and commercial cultivation of vegetables/vanilla.
10. Among the trainees who attended the training majority of the trainees (55 per cent) were employed either permanently or temporarily in government sector or private sector (48 per cent males and seven per cent females). Moreover 23 per cent of the trainees went for higher studies (20 per cent male and three per cent female) which might be the reason for not establishing agriliclinics and agribusiness centres by most of the trainees
11. The results of socio psychological variables influencing the trainees in establishing agriliclinics and agribusiness centres showed that the variables such as attitude towards self employment, entrepreneurial ability and self confidence had significant influence on trainees in establishing the centres.
12. There was significant difference between male and female respondents with regard to factors such as attitude towards self employment, decision making ability and information seeking behaviour.
13. The variables such as entrepreneurial ability and decision making ability were found to have significant association with the perception of trainees about trainers effectiveness and utility of the content of the training programme.
14. The variable attitude towards self employment is found to have significant association with the perception of trainees about the effectiveness of training methods used in the training programme.
15. The important constraints faced by the trainees in establishing agriliclinics and agribusiness units were of financial constraints such as the non

availability of credit facilities on time, cumbersome process in getting loan sanctioned, and non availability of matching grant for availing credit.

SUGGESTIONS FOR FUTURE RESEARCH

1. The present study was confined to Kerala state only. It is suggested that the study may be replicated in other states also.
2. Scope for the present investigation was restricted to the first three batches of trainees. Further studies may be taken up by pooling more batches after a few years.
3. Another area of possible study is distinguishing between trained and untrained agricultural graduates / entrepreneurs
4. An indepth study can be conducted on constraints faced by the trainees in establishing agriclinics and agribusiness centres
5. Since no action research has been made in this training programme, further research is possible in this area.
6. Detailed studies may also be conducted about the factors influencing the trainees in establishing agriclinics and agribusiness units.

CONCLUSION

This study revealed that nine respondents had started agriclincs and agribusiness units such as plant nursery, ornamental fish aquarium, consultancy services, hatchery and commercial cultivation of vegetables/ vanilla. It also highlighted the factors influencing the trainees in establishing agriclincs and agribusiness centres. The influencing factors such as attitude towards self employment, self confidence and entrepreneurial ability should be manipulated suitably wherever possible in the training programme to enhance the entrepreneurial behaviour of educated young minds. These attributes give an impression that the entrepreneur is a special kind of person and that not everyone can be an entrepreneur. Though this cannot be conclusively proved, the entrepreneur is certainly different from a non entrepreneur in his social, economic and psychological dispositions. However, the trainees who were not able to start business units felt that mere self inspiration, hard work and will power were not sufficient to succeed in this field. The study made it clear that unless the socio economic support is strong enough to shoulder business related risks, one can hardly become an entrepreneur. This has been proved in this study, which showed that the constraints identified were of financial in nature. Hence it is high time that the officials of both the government and promotional institutions including banks should take initiative in the matter of financial and promotional assistance to the new and prospective entrepreneurs, so that the environment will be friendly for the entrepreneurs to start up new ventures. The study also has brought to limelight that, trainees need necessary periodic counseling and follow up till he reaches the break even level, as an entrepreneur which is a significant aspect of entrepreneurship development.

“A new breed of people are beginning to emerge, influenced as they are by social factors and background, their basic education places them in a unique position to explore new avenues. Who are these people? - The finger points to the emerging agricultural graduate who is groomed by design to create opportunities for himself.”

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APPENDICES

APPENDIX-I

MILESTONES IN THE IMPLEMENTATION OF “AGRICLINICS AND AGRIBUSINESS CENTRES SCHEME”

November 6, 2001: At MANAGE, 104 organisations, mostly ICAR organizations and state agriculture universities was short listed for training

December 22, 2001: First National workshop of Nodal Officers was conducted. 6 MoU's were finalized. Financial and training guidelines were finalized

February 27 and March 3, 2002: Agriclincs and agribusiness centres scheme advertised through newspapers, across the country

February 27, 2003: Agriclincs and agribusiness centres cell was established at MANAGE

March 20, 2002: Second National workshop of Nodal Officers was conducted at MANAGE. Training curriculum was finalized.

April 9, 2002: The first training programme was launched by the honourable Union Agriculture Minister, Shri.Ajit Singhji at Jaipur, Rajasthan.

July 15 and 16, 2002: The first state level interface between agripreneurs, Bankers, Agribusiness Companies, State government Agencies and NGOs for hand holding mechanism for Andhra Pradesh was conducted at MANAGE. The interface provided more clarity and confidence to agripreneurs

July 23 and 24, 2002: Third National Workshop of Nodal officers at MANAGE was conducted to review training programmes for the first batch. Learning from each other's experiences was enriching. Recommendations were made by Nodal officers to improve the programme further

September 8 and 9, 2002: First National Interface of Successful Agripreneurs at MANAGE.

(Source: MANAGE. 2002. *Indian agripreneurs*. Technical Bulletin no: 1, National Institute of Agricultural Extension Management, Hyderabad, p.8)

APPENDIX- II

**KERALA AGRICULTURAL UNIVERSITY
COLLEGE OF HORTICULTURE
DEPARTMENT OF AGRICULTURAL EXTENSION**

A. Sakeer Husain
Assistant Professor

Dear Sir/Madam

Ms. S. Parimaladevi is undertaking a study titled "**Effectiveness of agriclincs and agribusiness training programme in Kerala**" as part fulfillment of her PG programme under my guidance.

This study intends to assess the effectiveness of the training programme, constraints and the lacunae in the modus operandi of the training programme under agriclincs and agribusiness scheme. Since your participation in the training programme was well appreciated, your valuable suggestions and responses through this questionnaire would help to make needed changes in the course content and methodology of the training.

As the results of the study and recommendations are expected to pass on to the agriclinc and agribusiness training centres to make necessary modifications, your responses may be filled at the earliest and mail back the completed questionnaire through the enclosed self addressed stamped envelope. Sparing your valuable time in responding this questionnaire will be helpful in scheming the training programme very effectively for the coming batches of trainees.

Thanking you

Vellanikkara

Yours faithfully

05.02 .04

(A. Sakeer Husain)

APPENDIX-II

KERALA AGRICULTURAL UNIVERSITY EFFECTIVENESS OF AGRICLINICS AND AGRIBUSINESS TRAINING PROGRAMME IN KERALA

(This questionnaire will be used only for academic purpose and the responses will be kept secret)

1. General information

a. Name of the respondent:

b. Age: .

c. Sex: M / F

d. Educational qualification:

e. Marital status: unmarried/ married

f. Subject specialization: Agri/Horti/Veterinary/Forestry/Fisheries/Co-operation/Others(specify)

g. Annual income:

h. Occupation:

2. Have you started agriclinics /agribusiness centres? : Y / N

If No, Why? -----

If Yes, When? -----

SN	Nature of the business	Nature of activities

3. Kindly give your agreement or disagreement on each statement given below.

(A- Agree, DA-Disagree)

a.

SN	STATEMENTS	A	DA
1	Self employment is a potential field during the present period of extreme unemployment		
2	Self employment is an independent profession as it offers freedom		
3	Self employment help one to become self sufficient in life		
4	Self employment is desirable since one need not expect any sanction from any official		
5	For an unemployed youth self employment is a sure profession facing the vagaries of life		
6	Since there are ample technologies available one can make self employment easily		
7	Agriculture is the basis for other industries so selecting self employment in agriculture is always worthy		
8	It is unwise to select self employment as it needs more physical and mental efforts		

9	There is no necessity for an educated unemployed youth to go for self employment as government jobs are meant for him		
10	Sound family background is a necessity for selecting self employment		

Kindly check your responses in the continuum viz strongly agree to strongly disagree against each statement based on your personal opinion. Please note that no statement is left blank. (SA-Strongly agree, A- Agree, DA-Disagree, SDA- Strongly disagree)

b.

SN	STATEMENTS	SA	A	DA	SDA
1	I can initiate and establish an economic activity effectively				
2	I am ready to face any risk on establishing an enterprise				
3	I can market the products effectively				
4	I always search for a change, exploit the opportunity				
5	I would like to diversify my economic activities to ensure the maximum profit with minimum risk				
6	I am not capable of adjusting to new situations				

c.

SN	STATEMENTS	SA	A	DA	SDA
1	I am systematic in all my activities so that I can finish the works in time				
2	I am not courteous in my dealings with others				
3	I can face a difficult situation without worry				
4	I can make others do what I want them to do				
5	I am not sure of myself in managing people				
6	I have a problem of ego when accepting other's ideas, suggestions or solutions				

d.

SN	STATEMENTS	SA	A	DA	SDA
1	I feel no obstacle can stop me from achieving my final goals				
2	I am generally confident in whatever I do				
3	I am bothered by the feeling that I cannot compare with others				
4	I am not interested to do things at my own initiative				
5	I usually workout things for myself rather than get someone to show me				
6	I get discouraged easily				
7	Life is a struggle for me most of the times				
8	I find myself worrying about something or others				

e.

SN	STATEMENTS	SA	A	DA	SDA
1	I analyze problems by considering the pros and cons and take decisions				
2	I will not take a decision without consulting others				
3	Once I take a decision, I will stick on to it				
4	I can take firm decision and initiate action when there are more alternatives				
5	So far I couldn't take a decision to start agriclincs and agribusiness unit				

f. Kindly check your response in the continuum against each source of information based on the frequency of using various sources in establishing /developing your agri entrepreneurship

SN	Source	Frequency			
		Regularly	Sometimes	Rarely	Never
1.	Mass media source				
a	T.V				
b	Radio				
c	Films				
d	News papers				
e	Farm publications				
f	Exhibitions				
g	Others (specify)				
2.	Personal-cosmopolite sources				
a	Research scientists				
b	Agri.officers				
c	Agri.assistants				
	Others (specify)				
3.	Personal-localite sources				
a	Progressive farmers				
b	Neighbours				
c	Friends				
d	Relatives				
	Others (specify)				

4.The following list of methods have been adopted in the training programme you have attended. Kindly check the degree of effectiveness under each method based on your experience.

SN	Methods	Highly Effective	Effective	Not Effective
1	Lecture			
2	Lecture with LCD projection			
3	Lecture with other audio visual aids			
4	Extempore talk (Straight talk)			
5	Study tour			
6	Field trips			
7	Talks by successful entrepreneurs			
8	Discussion after specialist talk			
9	Project formulation exercise			
10	VCD/video cassettes			
11	Demonstration			
12	Video conference			
13	Group discussion			
14	Brain storming			

5. Kindly rate your response about the utility of the training content in the following continuum.

S.N	Contents	Useful	Not useful
I	Agribusiness		
1	Components and characteristics of small business		
2	Managing small business		
3	Small business networking		
4	Identifying, developing and diversification of small business		
5	Agribusiness, concepts, nature and scope		
6	Scope of agribusiness, status, present role and future prospects		
7	Forms of agribusiness organizations, their advantages and disadvantages		
8	Agribusiness development, analysis of opportunities		
9	Importance of agribusiness for economic growth		
10	Decision making analysis in small agribusiness		
	Other suggested topics (if any):		
II	Information technology		
1	Cyber extension		
2	Role of IT in Agribusiness		
3	e-Commerce: its scope and local applications		
4	MS Windows, MS Office		
5	Agricultural portals, existing agricultural Management Information System and allied systems		
6	Expert systems in agriculture		
7	Internet and farmer knowledge management systems		
8	e-Commerce and IT based agri-marketing		
9	Geographical Information System in Agriculture		
10	Strategies for quality improvement through IT		
	Other suggested topics (if any):		
III	Marketing Management		
1	Introduction to marketing, general principles and concepts		
2	Marketing channels		
3	Special features of agricultural input marketing		
4	Marketing of services		
5	Pesticides marketing: problems and prospects		
6	Rural marketing – problems and prospects		
7	Market planning and market competition		
8	Marketing strategies for medicinal plants		
9	Marketing of vegetables in Kerala- Experiences of the Vegetable and Fruit Promotion Council, Kerala (VFPCCK)		
10	Brands, packaging and product features		
11	Distribution management		
12	Consumer behaviour		
13	Advertising and its impact		
14	Sales promotion activities		
15	Other suggested topics (if any):		

IV	Orientation on specific enterprises		
1	Fish culture		
2	Homestead farming		
3	Commercial production of cut flowers and dry flowers		
4	Mushroom – prospects for agriclincs and agribusiness		
5	Composting techniques		
6	New Frontiers in coconut processing technology		
7	Bio process in value addition of agro produce		
8	Setting up of fruit and vegetable processing units		
9	Appropriate post harvest technology with commercial prospects in Kerala		
	Other suggested topics (if any):		
VII	Supporting agencies		
1	Activities and role of Small Farmers Agribusiness Consortium (SFAC) in supporting agribusiness		
2	Role of District Industries Centre in facilitating entrepreneurs		
3	Role of Small Industries Service Institute (SISI) in the development of Small-scale industries with special reference to agribusiness		
4	Schemes offered by Small scale Industries Development Bank of India (SIDBI)		
5	Schemes of the National Horticulture Board		
6	Operations of Agricultural Technology Information Centre and Agro-Bio technology Agency for Rural employment and Development (ATIC ABARD)		
7	Crop and animal insurance – implications for agribusiness		
8	Role of NABARD in facilitating development in the livestock sector, agriclinc and agribusiness entrepreneurs		
	Other suggested topics (if any):		
V	Project formulation and evaluation		
1	Project formulation: a bankers perspective		
2	Orientation on data collection		
3	Project management: general principles and practices		
4	Various aspects of project preparation		
5	Assessing project profitability with respect to self, farmers, etc.		
6	Balance sheet analysis		
7	Capital expenditure decisions		
8	Process of capitalization & re-investing		
9	Pay back period, payment management, internal rate of return		
10	Cash flow and credit management operations		
11	Project appraisal		
12	Procedure for applying for a loan and how bankers will evaluate a project proposal		
	Other suggested topics (if any):		
VI	Case Study		
1	Case Study: a unit on Medicinal Plants (a unit under ABARD scheme)		
2	Case Study: a unit on Cocoa Products (a unit under ABARD scheme)		

6. Kindly give your opinion about the constraints faced by you in establishing agriclinics /agribusiness units in the following continuum (VI- Very Important, I- Important, SI- Slightly Important, NI-Not Important)

S. N	CONSTRAINTS	VI	I	SI	NI
1.	Economic constraints				
a.	Availability of credit facilities on time				
b.	Availability of matching grant for availing credit				
c.	Cumbersome process in getting loan sanctioned				
d.	High initial investment for the establishment of business				
e.	Constant need of finance				
f.	Any others (please specify)				
2.	Infrastructural constraints				
a.	Lack of availability of land				
b.	Lack of storage facilities				
c.	Inadequate transport facilities				
d.	Lack of post harvest facilities				
e.	Low irrigation facilities				
f.	Availability of office facilities in cities				
g.	Any others (please specify)				
3.	Promotional constraints				
a.	Availability of inputs				
b.	Lack of improved technology				
c.	Unpredictable climatic factors				
e.	Too much of competition				
f.	Price factors				
g.	Labour availability				
h.	Any others (please specify)				
4.	Socio-Psychological constraints				
a.	Inadequate experience about new business				
b.	Parent's discouragement for self employment				
c.	Social stigma in self employment				
d.	Insecurity				
e.	Lack of initiative				
f.	Low risk taking ability				
g.	Lack of motivation				
h.	Labour problems				
i.	Reluctance to self employment				
j.	Any others (please specify)				

	Other suggested topics (if any):		
VII	Legal systems		
1	Fertilizer control order		
2	Insecticide act/ rules and its implications for agribusiness		
3	Quarantine implications for agribusiness		
4	Implications of partnership act and taxation laws on agribusiness with special reference to sole tradership and firms		
	Other suggested topics (if any):		
VIII	Trade in the context of Globalisation		
1	WTO and challenges to agriculture		
2	Importance of marketing in the context of globalisation and privatisation		
3	Threats and opportunities in the agricultural sector in the context of globalisation		
4	Intellectual Property Rights (IPR) and related issues: implications for agripreneurs		
	Other suggested topics (if any):		
IX	Entrepreneurial Development		
1	Entrepreneurial development lab		
2	Interview with successful entrepreneurs		
3	Living habits for entrepreneurs		
4	Entrepreneurial competencies		
5	Business diversification		
6	What do bankers expect from entrepreneurs?		
7	Motivation for entrepreneurs		
	Other suggested topics (if any):		
X	General topics		
1	Gender perspective to agribusiness		
2	Certification of organic products		
3	Integrated nutrient management Vs. Organic farming		
4	Micronutrient status of Kerala and plant response		
5	Sustainable agriculture		
6	Management in practice		
	Other suggested topics (if any):		

5.	Technological constraints				
a.	Lack of awareness regarding potential enterprises				
b.	Poor technical know how				
c.	Availability of expert guidance				
d.	Any others (please specify)				
6.	Marketing constraints				
a.	Availability of market facilities				
b.	High market fluctuation				
c.	Exploitation by middlemen				
d.	Lack of market information				
e.	Lack of assured market				
f.	Lack of efficient market intelligence				
g.	Any others (please specify)				

7. Kindly give your suggestions to improve the scheme on agriclinics and agribusiness centres.

a. Information support for agriclinic and agribusiness

- 1.
- 2.
- 3.
- 4.

b. Hand holding facilities

- 1.
- 2.
- 3.
- 4.

c. Technical guidance

- 1.
- 2.
- 3.
- 4.

d. Loan facilities

- 1.
- 2.
- 3.
- 4.

e. Any others (please specify)

Thank you!

**EFFECTIVENESS OF AGRICLINICS AND
AGRIBUSINESS TRAINING PROGRAMME
IN KERALA**

By
S. PARIMALADEVI

ABSTRACT OF THE THESIS

Submitted in partial fulfilment of the
requirement for the degree of

Master of Science in Agriculture

**Faculty of Agriculture
Kerala Agricultural University**

**Department of Agricultural Extension
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2004

ABSTRACT

The study entitled “ Effectiveness of agriclinics and agribusiness training programme in Kerala” was undertaken “to evaluate the training content and methodology of the agriclinics and agribusiness training programme organized in Kerala by Kerala Agricultural University; to analyse the trainees profile; to assess the establishment of agriclinics and agribusiness centres by the trainees; to study the constraints, if any, faced by the trainees in establishing the centres ; and to suggest suitable measures to streamline the training and the scheme on agriclinics and agribusiness.”

The study was carried out in Kerala state. Sixty trainees of agriclinics and agribusiness training programme organized by Kerala Agricultural University were selected randomly, 20 from each batch and they were the major category of respondents of the study. Thirty trainers of the above said training programme were also selected purposively to identify the perception of trainers regarding the relevancy of the content of the training programme. Data were collected through mailed questionnaire.

Majority of the trainees selected for the training programme were young (92 per cent), male (85 per cent), unmarried (73 per cent), agricultural graduates (82 per cent) having no income. Most of the trainees had more positive attitude towards self employment (73 per cent), high information seeking behaviour (67 per cent) and more self confidence (55 per cent). The study revealed that field trips, study tour, talks by successful entrepreneurs were the most effective methods as perceived by the trainee respondents. The study also indicated that the trainers selected for agriclinics and agribusiness training programme were effective.

The results showed that the topics such as “Agribusiness development, analysis of opportunities; Role of IT in Agribusiness; Scope and local applications of

e-Commerce; Market planning and market competition; Brands, packaging, product features; Advertising and its impact; Sales promotion activities; Problems and prospects of pesticides marketing; Commercial production of cut flowers and dry flowers; Bio process in value addition on agro produce; Composting techniques; Schemes of the National Horticulture Board; Crop and animal insurance – Implications for agribusiness; Case Study: ABARD SAIU on Medicinal Plants; Importance of marketing in the context of globalisation and privatization and What do bankers expect from entrepreneurs? were found to be the most useful topics for the trainees as all the respondents had rated these topics as useful. In trainers view, emphasis should be given on areas like marketing, small business and orientation on specific enterprises. The study shows that there were five types of business started by the trainees such as plant nursery, ornamental fish aquarium, consultancies, hatchery and commercial cultivation of vegetables/ vanilla. Among the sixty trainee respondents, nine trainees started agriclinics and agribusiness centres.

The study revealed that the factors such as attitude towards self-employment, entrepreneurial ability and self confidence were found to influence the trainees in establishing agriclinics and agribusiness centres. There was significant difference between male and female respondents with regard to factors such as attitude towards self employment, decision making ability and information seeking behaviour. It is clear from the analysis that there was significant association between the factors viz., entrepreneurial ability and decision making ability with the perception of trainees about trainers effectiveness and the utility of the content of the training programme. There was significant association between attitude towards self employment with the perception of trainees about the effectiveness of training methods used in the training programme. The most important constraint faced by the trainees in establishing agriclinics and agribusiness units was the non availability of credit facilities on time followed by cumbersome process in getting loan sanctioned and non availability of matching grant for availing credit. It could be inferred that most of the constraints experienced by the trainees were financial in nature.