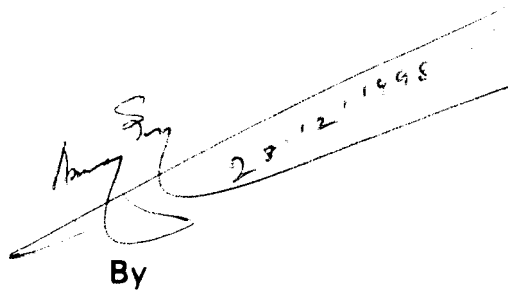


# **AGRICULTURAL INFORMATION COMMUNICATION THROUGH FARM PAGE OF NEWSPAPERS - AN ANALYSIS**

A handwritten signature in black ink, appearing to read 'Balachandra Nath N. G.', is written over a diagonal line. To the right of the signature, the date '23.12.1998' is written in black ink.

**By  
BALACHANDRA NATH N. G.**

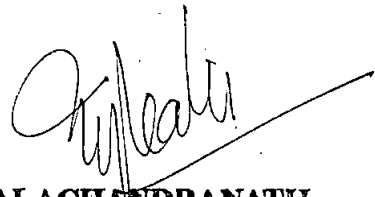
**THESIS**  
submitted in partial fulfilment of the requirement  
for the degree  
**MASTER OF SCIENCE IN AGRICULTURE**  
Faculty of Agriculture  
Kerala Agricultural University

Department of Agricultural Extension  
COLLEGE OF AGRICULTURE  
Vellayani–Thiruvananthapuram-695 522

1998

## DECLARATION

I hereby declare that this thesis entitled "AGRICULTURAL INFORMATION COMMUNICATION THROUGH FARM PAGE OF NEWSPAPERS - AN ANALYSIS" is a bonafied record of research work done by me during the course of research and that 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.



**N. G. BALACHANDRANATH**

**Vellayani,**

24.12.1998

## **CERTIFICATE**

**Certified that this thesis entitled "AGRICULTURAL INFORMATION COMMUNICATION THROUGH FARM PAGE OF NEWSPAPERS - AN ANALYSIS" is a record of research work done independently by Sri. N.G Balachandranath under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.**

**Vellayani,**

24.12.1992



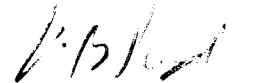
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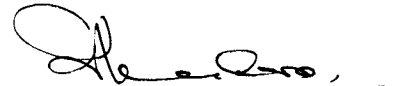
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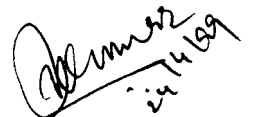
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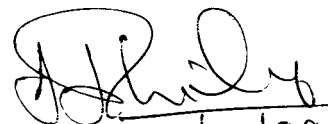
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**N. G. BALACHANDRANATH**

**Vellayani,**

24.12.1998

# CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1 - 5
II. THEORETICAL ORIENTATION	6 - 18
III. METHODOLOGY	19 - 34
IV. RESULTS	35 - 61
V. DISCUSSION	62 - 69
VI. SUMMARY	70 - 74
REFERENCES	i - xi
APPENDICES	I & II
ABSTRACT	

## **LIST OF TABLES**

Table	Title	Page No.
4.1.1	Distribution of articles published according to the field of agriculture	36
4.1.2	Distribution of articles published according to the crop	37
4.1.3	Distribution of articles published according to the aspect of crop production	38
4.2.1	Frequency matrix for the five fields of agriculture judged by the respondents	40
4.2.1.2	Proportion matrix for the five fields of agriculture judged by the respondents	40
4.2.1.3	Z-matrix for the five fields of agriculture judged by the respondents	41
4.2.1.4	Scale values and ranks of the five fields of agriculture	41
4.2.2	Frequency matrix for the six different crops judged by the respondents	42
4.2.2.1	Proportion matrix for the six different crops judged by the respondents	42
4.2.2.2	Z-matrix for the six different crops judged by the respondents	43
4.2.2.3	Scale values and ranks of the six different crops	43
4.2.3	Frequency matrix for the six different aspects of crop production judged by the respondents	44
4.2.3.1	Proportion matrix for the six different aspects of crop production judged by the respondents	45
4.2.3.2	Z-matrix for the six different aspects of crop production judged by the respondents	46



4.2.3.3	Scale value and ranks of the six different aspects of crop production	46
4.3.1	Information need of respondents in different fields of agriculture	47
4.3.2	Information need of respondents on important crops	48
4.3.3	Information need of respondents on important aspects of crop production	49
4.3.4	Frequency of reading farm page by the respondents	50
4.3.5	Preference of respondents towards mode of presentation	51
4.3.6	Preference of respondents towards type of publications	51
4.4.1	Distribution of respondents according to age	52
4.4.2	Education status of respondents	53
4.4.3	Size of landholding of respondents	54 - 55
4.4.3.1		
4.4.4	Farming experience of respondents	55
4.4.5	Annual income of respondents	56
4.4.6	Frequency of visit to nearest city by the respondents	57
4.4.6.1	Purpose of visit to neighbouring city by the respondents	57
4.4.6.2	Membership of respondents in organisations	58
4.4.7	Mass media exposure of respondents	58
4.4.8	Attitude of respondents towards scientific agricultural practices	59
4.4.9-1	Correlation of personal characteristics with reading behaviour and agricultural information need	59 - 60
4.4.9-2		
4.4.10	Relationship of reading behaviour and education of the farmer readers	61

## **LIST OF FIGURES**

Sl. No.	Title	Between Pages
1.	Map of Thiruvananthapuram district	19 - 20
2.	Diagram showing the distribution of articles published according to the field of agriculture	37 - 38
3.	Diagram showing the distribution of articles published according to the crops	38 - 39
4.	Diagram showing the distribution of articles published according to aspects of crop production	39 - 40
5.	Diagram showing the correlation of the selected characteristics of farmer readers with their reading behaviour	60 - 61
6.	Diagram showing the correlation of selected characteristics of farmer readers with their information need on fields of agriculture, crops, and aspects of crop production.	61 - 62

## **LIST OF APPENDICES**

- I. Check - list for content analysis of farm page
- II. Interview shedule

## **INTRODUCTION**

# CHAPTER I

## INTRODUCTION

The concept of communication has been with us since the creation of man. The methods and the process is differ from region to region, country to country. Even now, with the idea of global village becoming a reality, we differ as far as methods and process of communication are concerned.

A vital element in modernization and development is the communication process by which messages are transmitted from a source to the receiver. Franco (1977) defined communication as an act or process involving transmission of information, ideas, emotions, skills, etc. by the use of verbal or non-verbal means. Lerner (1967) recognized the importance of communication as a stimulus for peasant modernization. Various communication media are utilized to transfer science and technology from the place of higher learning to the villagers for modernizing them. According to Rogers and Svenning (1969) mass media channels are all those means of transmitting messages that involve a mechanism to reach a wide and often non-contiguous audience. Mass media have the unique advantage of reaching large audience in a single exposure.

Among mass media, print media have a vital role. Print media form a potent means of communicating information to the masses and they possess the potentialities of communicating information to a large number of people simultaneously and quickly. As stated by Nataraju and Perumal (1995) the increasing rate of literacy in the country offers new promises and prospects for utilizing print medium as a means of mass education.

Among print media, newspaper can claim several advantages. Arbour (1966) considers newspaper as a medium with much value due to its following characteristics.

- i. Large and regular audience.
- ii. High readership
- iii. Low cost communication.
- iv. Retention value and
- v. Fast communication.

In Kerala, where the literacy is 93.58% being the highest among the states in India (Pillai 1995) - newspapers present a regular and established network of communication through which masses can be approached. Newspaper is a powerful medium in Kerala to disseminate agricultural technology among farmers of the state. Many of the newspapers in the state are publishing Farm pages in them every week. At this juncture, certain questions arise.

What are the topics dealt with in the Farm pages over a period of time?

What are the contents of the articles preferred by the farmer readers?

How often are the articles published in the Farm Pages read by the farmer readers?

These questions have to be answered for improving the quality and utility of the Farm pages. A knowledge about the extent to which the Farm pages help in disseminating new agricultural technologies will be of great use to the extension workers and administrators in charge of agricultural development in planning their communication strategy.

### **1.1 Need for the study**

The present study is an analysis of agricultural development information through

Farm page of newspapers. Farm page of newspaper is a print medium. The importance of print medium in agriculture has been highlighted by many authors. It is especially considered that newspaper is a powerful medium to disseminate agricultural technologies among the farmers of the state.

Tajuddin and Mohan (1989) reported that among the various extension tools tried to transfer agricultural technology, communication through written words, namely, the publication of articles and write-ups in journals, magazines and newspapers had better response from farmers. Communication through written words in regional language invited more enquiries when compared to that in English which revealed that more emphasis must be given for publication in regional languages to effectively transfer technology.

The investigation conducted by Nataraju and Perumal (1993) in the Bangalore rural district of Karnataka state among subscribers of farms magazines revealed that maximum number of farmers were readers of articles relating to agriculture to know about the new farming methods and had favourable attitude towards print medium.

No systematic study has been made so far, to investigate agricultural information communication through farm page of newspapers. Hence the present study entitled " Agricultural information communication through farm page of newspapers- An analysis" was taken up with the objective in view.

## **1.2 Objectives**

The following are the specific objective of the study.

- i) To analyse the content of articles published in Farm page of leading newspapers in Malayalam language.
- ii) To identify the preference of farmer readers towards the content.

- iii) To assess the agricultural information need and reading behaviour of farmer readers.
- iv) To study the personal characteristics of farmer readers.

### **1.3 Scope of the study**

The findings of the content analysis will help to improve the content, quality and utility of Farm Page of newspaper. The result of the study will bring to light the reading preference, agricultural information need and reading behaviour of farmers which will be useful for the writers and publishers of Farm page. The findings of the study will be helpful for improving the efficiency of the Farm News Services of the Kerala Agricultural University.

### **1.4 Limitations of the study**

The present study was undertaken by a single investigator as a part of the requirement of the MSc.(Ag) programme. So the limitations of the time coverage and other resources would normally, encounter, which restricted the exploration of the areas in a greater depth and in a more comprehensive manner. The study was restricted to six panchayats in Nemom block of Thriuvananthapuram district and hence a broad generalisation of the findings could not be feasible. However utmost care has been taken to make the study as objective as possible.

### **1.5 Presentation of the thesis**

The presentation of the remaining chapters of the thesis is as follows.

Chapter II Provides theoretical orientation of the study.

Chapter III Covers the methodology of research for the study in which location of study, sampling procedure, techniques of measurement and statistical tools employed are given.



Chapter IV Covers the result of the study in detail.

Chapter V Deals with interpretation of findings and their discussion.

Chapter VI Describes the summary of the entire research work giving emphasis to its salient findings.

At the end, the reference, appendices and the abstract of the thesis are given.

## **THEORETICAL ORIENTATION**

## CHAPTER II

### THEORETICAL ORIENTATION

This chapter is intended to provide a theoretical base for this empirical investigation. It will lead to identification and selection of relevant variables for the study. The relevant literature reviewed is presented in this chapter under the following titles.

1. Content analysis of the articles published.
2. Preference towards the content.
3. Agricultural information need and reading behaviour.
4. Personal characteristics.
5. Attitude towards scientific agricultural practices.

#### **2.1 Content analysis of the articles published.**

Content analysis as a method provides ample scope for evaluation and revision. It is a highly valid and relevant empirical method which can be used as a means of studying the nature of materials prepared, the manner in which the ideas and facts are presented, the meaning they convey, the language used and so on. The method of content analysis primarily involves a conceptual analysis followed by confirmation sought through user for learners responses. The methodology commonly practiced in making a content analysis is to categorize and count key words, themes, issues etc. presented and discussed in the materials under consideration.

Oliver et. al. (1974) found that the agricultural articles published in the newspaper, Dinamoni were practicable by the farmers.

Gajapathy (1975) in a study on content analysis of two Tamil dailies revealed that of the 33 agricultural articles published in Dinamani, seven were on cultivation aspects of crops, namely, paddy, groundnut, betelvine and potato, four on plant protection aspects and the remaining on general aspects. In the case of 'Malai Murasu' he found that out of 28 articles 18 were on cultivation aspects of crop, namely, paddy, millets, oilseeds, greengram and blackgram, four on plant protection aspects and the rest on general aspects.

Vilani (1975) observed in a study of development news coverage in two leading Indian Newspapers, that 'Malayala Manorama' gave about 10% of its news whole for development and gave top priority to agricultural development which got 5th place among ten top priorities of the daily on the basis of area devoted per page for these items.

Singh and Kumar (1977) revealed from their study on content analysis of one English daily 'The Indian Nation' and one Hindi daily 'The Aryavarta', that the amount of mean space devoted by each newspaper to the publication of Agricultural news was significantly more than that devoted to the publication of other types of materials with agricultural content.

Subhash (1979) reported that both Mathrubhumi (6.5%) and Kerala Kaumudi (6.2%) gave almost the same ration of space for development news and 'Malayala Manorama' (4.9%) was behind the other two.

Khandekar and Mathur (1980) used various criteria such as suitability of content, length, usefulness, timeliness etc. to assess the effectiveness of a farm magazine.

Nehley and William (1980) reported that effectiveness of printed materials depends on variety of factors including (1) readability, (2) comprehension and (3) amount and type of information presented.

Kaur and Mathur (1981) observed that the content of a farm magazine is the most important determinant of its success and only an attractive cover page and format will not help if the content is not timely, need based and locally relevant.

Krishna Kumar (1982) reported that agricultural articles were had more coverage in farm magazine compared to other allied subject matter areas.

Rajan (1982) revealed that the readership of a publication will be influenced by its contents. Contents here means the manifest contents of the publication interms of the different subject matter dealt within the publication. It was also revealed that majority of the articles published in farm page of Malayalam newspapers were on crop production followed by dairy, poultry and pisciculture in that order. Within crop production majority of the articles published were on plant protection, followed by manures and fertilizers, seeds and sowing, soil and water management and processing and storage in that order.

Balachandran (1983) observed that content is the most influencing factor in the readership of any publication. An individual prefers to read a publication more, if he finds its contents suiting his taste. As far as agricultural publications are concerned it is the utility of their content that matters.

Saha and Trikha (1989) found in a study on Indian Farmer's Digest, an English monthly farm magazine published by G.B Pant University of Agriculture and Technology, Pantnagar that out of 115 articles published during the year 1986, the maximum number (49.56%) was on agriculture, followed by agricultural engineering (21.74%), animal science (18.26%), home science (7.82%) and general aspects (2.61%).

Prakash et. al. (1990) in their study on farm pages of three leading Malayalam dailes, namely, Mathrubhumi, Malayala Manorama and Kerala Kaumudi found that irrespective

of the newspaper, articles on crop production was the maximum. In Mathrubhumi and Kerala Kaumudi, maximum number of articles published were on paddy, followed by coconut and rubber. In Malayala Manoram maximum number of articles published were on rubber.

Mehra and Trikha (1993) observed in a study of forty eight theses on agricultural communication submitted during 1983-89, that out of ten areas, audience profile had the largest share (20.83%) followed by radio (16.67%) and the audio visual (12.5%). The least emphasized area was traditional folk culture.

Nataraju and Perumal (1995) reported that agriculture has been the major area of coverage in both the Kannada farm magazines studied by them, namely, Krishivignana (60.3 %) and Krishiloka (53.5%). Next in the order were articles on horticulture, animal husbandry, fishery science, agricultural engineering, sericulture, forestry, home science and social sciences.

Padmanabhan (1995) found that out of the total number of 43 articles published, 34 were in the field of crop production. Thus, majority (79 percent) of the articles published were in crop production. Three articles each were published in the fields of dairy and pisciculture closely followed by poultry (2) and piggery (1) in that order. The field of agriculture, namely, crop production were distributed over 17 crops. Seven articles were published under medicinal plants, followed by the crops coconut (5), rice (4), rubber (3) and so on. Only one article each was published under tapioca, and banana even though they are important crops of Kerala state. The total number of 34 articles published under crop production, 16 were dealing with general aspects of crop production. Six articles each were published under seeds and sowing and manures and fertilizers. When three articles were published under processing and storage, two were published under plant

protection and only one under soil and water management.

Sasikumar and Selvaraj (1997) in their study on analyse the content of farm advertisement gives through radio, television and newspaper found that out of 33 advertisements given through mass media, 17 were from radio, five of them through Television and 11 from newspaper.

Sherif and Vasantha kumar (1997) observed that out of the total 697 articles that appeared during Jan 1990 to Dec 1994 in 'Kerala Karshakan' majority (43.90%) of the articles were on agriculture followed by animal husbandry (20.50%) and horticulture (11.80%). The coverage of other subjects in the descending order were agricultural engineering (6.8%), homescience (5.5%), forestry (5.2%), rural development (3.7%) and fisheries (2.6%).

Theodore and Selvaraj (1998) in their study on content analysis of Journal of Extension Education reported that nearly three forth (72.69%) of the papers were research articles followed by 19.68% of research notes, 6.02% of conceptual articles and four book reviews.

Nataraju (1998) observed that out of total of 220 feature articles published majority (30.9%) of them belonged to horticulture subject followed by agriculute (27.26%) and fertilizer management (10.91%). The subjects like animal husbandry, forestry and sericulture were covered moderately with 7.28, 6.36 and 4.55 percent respectively.

## **2.2 Preference towards the content**

Many researchers have assessed the reading preference of farmers to different content areas of journals and newspapers.

Oliver (1971) found that the farmer subscribers of 'Dinamoni' daily gave preference to the different fields of agriculture was in the following order. Crop production, dairy, poultry, pisciculture and piggery. It was also found out that the preference to the different areas of agricultural information was in the order as recommended package of practices, farmers experience, research findings, pest incidence and their control.

According to Singh and Haque (1972) the order of preference to the items of information on wheat cultivation as given by farmers is as follows: Fertilizer, intercultural operations, disease control, storage, sowing, harvesting, ploughing, water test, improved seeds, marketing of produce and soil test.

Khandekar and Mathur (1986) has found that the preference of the readers of 'Unnatkrishi' a Hindi farm Magazine in the order of cultivation of crops, animal husbandry, dairy, fruits and vegetables, poultry, fisheries and piggery. The preference in different aspects of crop production is as follows. Plant protection, manures and fertilizers, soil and water management, processing and storage, seeds and sowing.

Balachandran (1983) found that plant protection was the most preferred area followed by manures and fertilizers, seeds and sowing, soil and water management and harvesting and processing.

Padmanabhan (1995) observed that the most preferred field of agriculture by the farmer subscribers was crop production, followed by dairy, poultry, pisciculture and piggery in that order. It was also observed that the most preferred aspects of crop production was plant protection, followed by manures and fertilizers, soil and water management, processing and storage and seeds and sowing in that order.

Vijayaraghavan et al. (1997) found that majority (69.05%) of the respondents gave importance to read current events in dailies, which is in confirmity with Akhileswari (1984).



Slightly less than one third (30.16%) of them had given emphasis importance to read agricultural news of dailies followed by politics (25.40%). A very scanty percentage of respondents gave importance for sports (4.76%) and market details (5.56%).

Nanjappa et.al. (1998) observed that success stories were preferred most by the farmers followed by suggestion to farmers. 'Question and answers' and lastly 'Feature article'.

### **2.3 Agricultural information need and reading behaviour.**

The adoption of improved technology by the farmers depends on the quick dissemination of farm information in an intelligent and compatible manner among the farmers. For any programme of transfer of technology to be successful, it is very essential to know what the farmers actually need and how much is given through the farm programme. In many instances, there exists a big gap in the information supplied and information need of the farmers. Every effort should be made to reduce this gap. This can be possible if the programmes are prepared after assessing the needs of the farmers.

Sandhu and Sharma (1976) in their study with 100 farm women found that information needs of farm women were perceived high in order of importance in respect of plant protection measures, seed selection and treatment, grading, storage and marketing of food grains, fertilizer use, improved agricultural tools and the preference given to the information needs about improved agricultural tools by farm women was the least one.

Singh et. al. (1976) conducted study in 2 villages on Khanjhawala block of Delhi territory among 158 farmers, found that information regarding the soil test is most needed for big farmers and other important farm information needs were foliar application plant

protection measures and weed control. The most important farm information need of small farmers were farm credit, fertilizer application and plant protection measures.

Singh and Hansra (1992) in their study with 120 farmers from 24 villages of Jalandhar district found that information need regarding plant protection measures got maximum score for the crops wheat, rice, potato followed by information need regarding improved varieties and agronomic practices with respect to all crops under study.

Singh and Aggarwal (1993) found out that farm women wanted to know more about how to take care of farm produce. Methods of storage of food grains, precautions in using chemicals for storage and points to be kept in mind before storage of farm produce were assigned first, second and third ranks respectively.

Boniface (1996) in her study reported that the information most needed for neo-literate farmers for the crop banana was about the fertilizers dose and for vegetables, it was the dose of plant protection chemicals.

Nanjappa *et. al.* (1998) in their study on utility of agricultural information by the newspaper reader farmers of Bangalore district, found that 48% of farmers preferred information on cultivation aspects of vegetables and 21% on ragi, an equal percentage of farmers on mulberry and 17% on paddy.

Reading behaviour indicates the extent of exposure to the communication through the journals. Individuals vary much in their reading behaviour as shown by the following reviews.

Honnart (1970) observed that 57% of Belgian farmers read regularly the agriculture news published in a paper and 18% read less regularly and others never read it.

A study by Veerabhadriah and Sethurao (1970) revealed that 57% of the farmers of Dharwar in Karnataka State read the farm information regularly.

Oliver et. al. (1974) reported that 76.7% of the farmer subscribers read agricultural articles published in Dinamoni daily.

A study conducted by Awa (1974) in Yates Country pointed out that farm bulletins were read by 16.8% of low income farmers and 44.7% community leaders.

Rajan (1982) observed that 42% of the farmer subscribers of newspaper were reading the weekly Farm page regularly every week. When 16% of the farmer subscribers were reading it once in a fortnight, there were 18% of them who were reading it occasionally and 15% of them who never read the Farm page.

Prakash et. al. (1990) reported that nearly 92% of the farmers were reading the Farm page of newspapers regularly.

Padmanabhan (1995) found out that 27 out of the total 50 (54%) farmer subscribers were reading the Farm page every week. When 16% of them were reading it occasionally, 14% were reading it once in two weeks, 2% once in three weeks and 6% once in a month. It was also found that 8% of the farmer subscribers were never reading the Farm Page.

Vijayaraghavan et. al. (1997) observed that about 44.44% of the total readers allotted less than 30 minutes per day for reading both dailies and magazines. Slightly higher than one fourth (30.95%) of them spent 31-60 min/day followed by 61-120 min/day (16.67%) and above 120 min/day (7.94%) to read both dailies and magazines.

## **2.4 Personal Characteristics**

Study by Gwyn and Hodge (1968) revealed that middle aged farmers preserved publications and were heavier readers.

Zalaki (1973) found a positive relationship between age and readership of agricultural publications.

Balachandran (1983) observed that there was no relationship between age and reading habit.

Miah and Halim (1994) found out that one fourth (25.2%) of the farmers were young (age upto 35 years) compared to 35.2 percent middle aged and the rest being old (age 51 years and above).

Mani (1959) observed that education was significantly related with reading farm publications. Studies by Kidwai (1965), Marsha and Knox (1966), Mishra (1969) and Zalaki (1973) revealed a positive relationship between readership of publication and level of education.

Miah and Halim (1994) reported that 28% farmers were illiterate and slightly less than two thirds of the respondents had primary to secondary level education. Only 8 percent had higher secondary level education.

Anithakumari (1989) and Thakur (1991) revealed that majority of respondents possess marginal size of holdings.

Rajan (1982) and Balachandran (1983) reported that there was no relationship between size of land holding and reading habit of farmers.

Farming experience is operationally defined as the number of years the farmer reader has been engaged in farming.

Nataraju and Perumal (1993) observed that around 70% of the farm magazine readers had more than 10 years of experience in farming. Since the farmers were mostly under the middle and higher age group farming experience is natural. Similar findings were reported by Krishna Kumar (1990) and Muthazhagam (1990).

Miah and Halim (1994) found that more than fourfifth (82%) of the respondent gathered experience ranged from 11 years and above, while the rest had below 11 years of

farming experience.

Annual income refers to the total earning of the farmer reader from both farming and subsidiary source for one year.

Shanmughavadivu (1992) and Devi (1994) inferred that majority of the respondents belonged to the medium income category.

The findings of Nataraju and Perumal (1993) revealed that farming alone was the major occupation for most of the readers of 'Krishivignana' (63%) and 'Krishiloka' (66%) magazines. Less than one fifth of the 'Krishivignana' (18%) and 'Krishiloka' (16%) readers had agricultural labour as their secondary activity. The findings of Nijalingappa (1983), Muthazhagam (1990) and Patil and Namasivam (1990) support the current finding. It was also revealed that the income level of respondents showed 53% of the 'Krishivignana' readers and 41% of 'Krishiloka' readers belonged to the medium income group (Rs. 5000-10,000) followed by high income group.

Cosmopolitanism refers to the degree to which the farmer readers is oriented to his immediate outside social system.

Rajan (1982) reported a significant relationship between cosmopolitanism and reading habit.

Balachandran (1983) observed that education and cosmopolitanism were having significant and positive relationship with reading habit.

Nizammudeen (1996) inferred that 50 percent of the respondent farmers belonged to high and low groups with respect to cosmopolitanism.

Exposure to mass media refers to the frequency of reading newspaper, listening to broadcast or telecast, reading farm magazine and other literature related to agriculture.

Renukaradhya (1983) found a significant relationship between mass media participation of trained farmers with their level of economic performance.

Balasubramanian (1985), Godhandapandi (1985), Jayapalan (1985), Wilson and Chaturvedi (1985) observed positive and significant relationship between extent of adoption and mass media participation where as Nanjaiyan (1985) reported no significant association between mass media exposure and extent of adoption by small farmers.

Pradeep kumar (1993) reported that mass media contact was positively and significantly related with the extent of participation in agricultural and allied fields.

Newcomb (1950) speaks of attitude as a state of readiness for motive arousal and an individual attitude towards something is this pre-disposition to perform, perceive, think and feel in relation to it.

Singh (1978) showed that high scores on attitude towards farming was associated with progressive farm behaviour. Prakash (1980) revealed that tribal communities of Kerala exhibit an unfavourable attitude towards farming.

Padmanabhan (1981) in a study conducted among agricultural labourers observed a significant positive relationship between attitude of agricultural labourers towards scientific agriculture and their efficiency.

Singh and Singh (1982) in their investigation on 'Rationale and adoption behaviour of farming couples' revealed that values and attitudes were found significantly related with rationale and adoption behaviour of couples in respect of high yielding varieties.

Viju (1985) revealed that majority of the Kanikkars had a medium level of attitude towards farming.

Seema (1986) in her study revealed that majority of women in Nadar Coommunity were found to have either high or medium level of attitude towards farming. She also observed that role perception and performance of women were not significantly related with attitude towards farming.

Reddy (1987) opionioned that attitudes towards watershed management programme was significantly associated with the productivity of dry land ragi.

Shilaja (1990) reported that large, small and marginal farm women did not differ significantly among themselves with regard to attitude towards mixed farming. However, these three groups differed significantly with women agricultural labourers on this account, she concluded.

Sindhudevi (1994) reported that agricultural labourers had low attitude towards scientific agriculture.

In this present context, attitude towards scientific agricultural practices has been defined as the positive or negative affect associated with scientific agricultural practices, towards which farmer readers differ in varying degrees.

## **METHODOLOGY**



## **CHAPTER III**

### **METHODOLOGY**

The methods employed in the study are presented in this chapter under the following sections.

- 3.1. Selection of locale for the study.
- 3.2. Sampling procedure employed.
- 3.3. Techniques of measurement used in the study.
- 3.4. Tools for data collection.
- 3.5. Statistical tools employed.

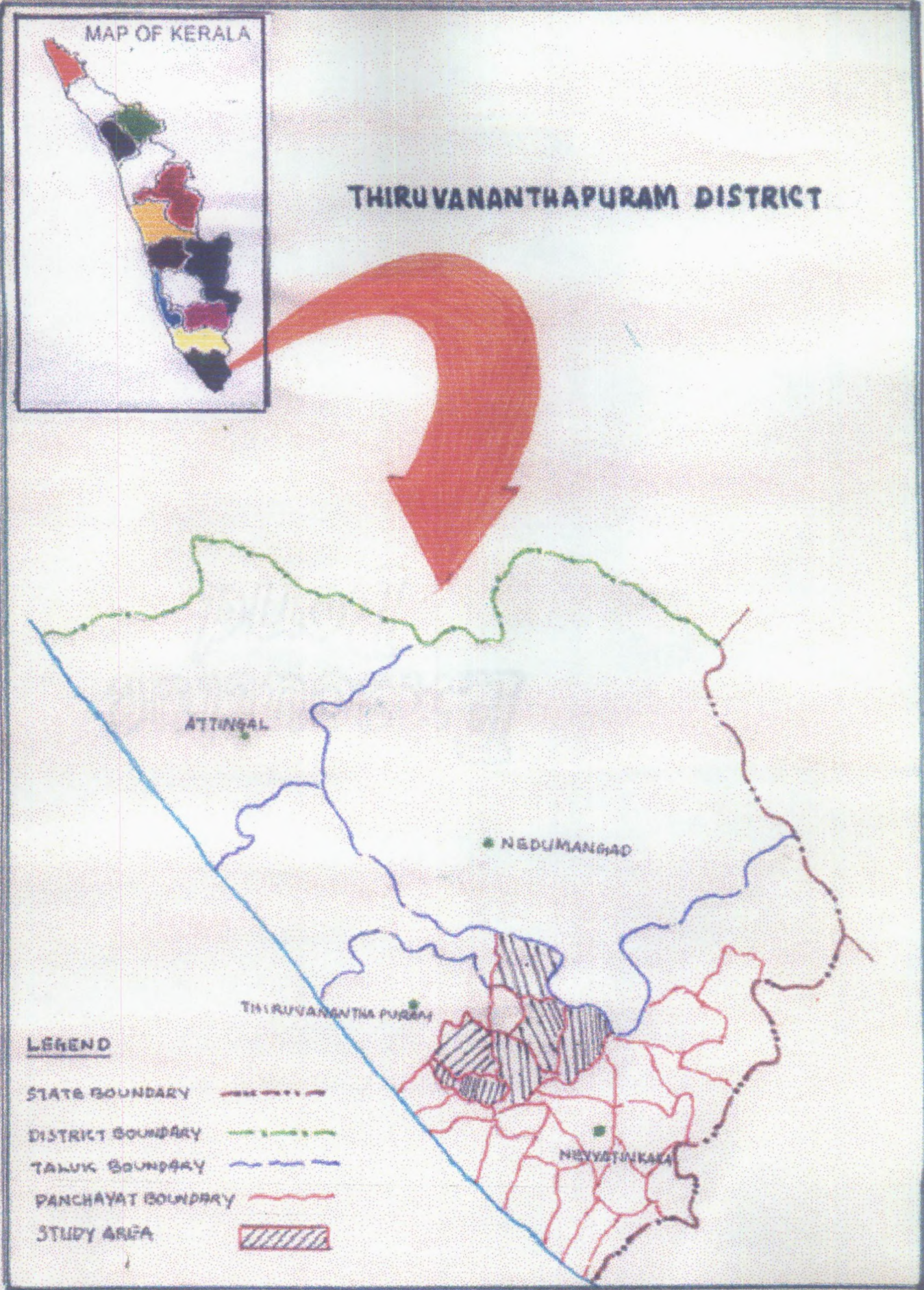
#### **3.1 Selection of locale for the study.**

Thiruvananthapuram district was selected purposively for the study. A map showing the location of the study is given in Fig. 1.

#### **3.2. Sampling procedure employed.**

Three stage random sampling was followed to select 120 farmer readers as respondents for the study as detailed below.

Thiruvananthapuram district consists of 12 blocks. From among them one block was selected at random (1st stage). From the selected block, six Krishibhavans were randomly selected (2nd stage). From the selected Krishibhavans, one ward each was selected at random (3rd stage). The list of farmers in each ward was collected from the Krishibhavan. The farmers who were reading farm page of newspaper were identified in the list and a revised list was prepared. From the list, 20 farmer readers were selected randomly in each of the six wards, thus getting 120 farmer readers as respondents for the study.



**Fig-1.** Map showing the location of the study

For analysing the content of articles published in farm page, leading Malayalam dailies, namely, Mathrubhumi, Malayala Manorama and Kerala Kaumudi were selected. The universe of content analysis was the articles published in Farm page of these leading Malayalam newspaper during the calendar year 1997.

### **3.3 Techniques of measurement used in the study.**

#### **3.3.1. Content analysis**

The technique of content analysis was used for analysing the content of articles published in Farm page. According to Berelson (1954), content analysis is a method of studying and analysing communication in a systematic, objective and quantitative manner to measure variables. As stated by Chatterjee (1992) content analysis has developed as a significant branch of communication analysis. Content analysis technique can be used for the quantification of any data which appears to be quantitative in character. This method is primarily concerned with "ideas" contained in a record - be it a text, a speech, a document, a protocol and so on. Any set of communication content can be analysed by content analytic technique depending upon the research question for which answer is being sought.

Content analytic studies reported by Rajan (1982), Balasubramanian (1983), Nanjappa and Ganapathy (1987), Hasan and Roy (1989), Saha and Trikha (1989), Joshi and Laharia (1990), Prakash *et.al.* (1990), Subramanian (1991), Nataraju and Perumal (1995) and Philip *et.al.* (1995) and the articles published in farm page of leading Malayalam dailies namely "Mathrubhumi", Malayala Manorama" and "Kerala Kaumudi were reviewed, farm journalist were consulted and the following five content categories (fields of agriculture) were identified for doing the content analysis.

- i. Crop Production
- ii. Animal husbandry
- iii. Poultry
- iv. Pisciculture
- v. Piggery

The number of articles published under each of the above five categories were enumerated and these content areas were ranked according to the number of articles published under each.

All the articles dealing with crop production were taken separately and the number of articles falling under each crop was found out. The crops were ranked according to the number of articles published under each.

The articles dealing with crop production were analysed for the number of articles falling under each of the six aspects, namely, seeds and sowing, manures and fertilizers plant protection, processing, storage and marketing. The aspects of crop production were ranked according to the number of articles published under each.

### **3.3.2 Paired Comparison**

Reading preference was identified with respect to the following.

- i. The different fields of agriculture dealt within Farm Page.
- ii. The different crops dealt within Farm page.
- iii. The different aspects of crop production dealt with in Farm page.

Identification of the reading preference involved the following steps:

- i. Delineation of the content areas.
- ii. Ranking the content areas according to the readers' preference.

### **3.3.2.1 Delineation of the content areas**

#### **3.3.2.1.1. Identification of the fields of agriculture.**

After consulting farm journalists and relevant literature, the following five fields of agriculture were identified for identifying the preference of farmer readers.

- i. Crop production
- ii. Animal husbandry
- iii. Poultry
- iv. Pisciculture
- v. Piggery

#### **3.3.2.1.2. Identifying different crops**

The following crops were identified as most important with the help of farm journalists and reviewing relevant literature for identifying the preference of the farmer readers.

- i. Paddy
- ii. Coconut
- iii. Tapioca
- iv. Banana
- v. Vegetables
- vi. Rubber

### **3.3.2.1.3. Identifying the aspects for crop production.**

After consulting farm journalist and reviewing relevant literature, the following six aspects of crop production were identified as most important for identifying the preference of the farmer readers.

- i. Seeds and sowing
- ii. Manures and fertilizers
- iii. Plant protection
- iv. Processing
- v. Storage
- vi. Marketing

### **3.3.2.2 Ranking the content areas according to the readers preference.**

The ranking according to the readers preference was done by paired comparison technique as per the procedure suggested by Edwards (1969).

Rogers and Svenning (1969) used paired comparison technique developed by Thurstone (1927) to measure the credibility of information sources as preferred by Columbian farmers. Sivaramkrishnan (1976) used paired comparison technique to measure the credibility of information sources as preferred by neoliterates farmers in Kerala State.

The five fields of agriculture, six crops and six aspects of crop production mentioned above were present in pairs in all combinations. The maximum number of pairs possible is given by the formula  $n(n-1)/2$  where 'n' is the number of items to be presented in pairs. Thus, for five fields of agriculture  $5(5-1)/2=10$  pairs and for six crops and six aspects of crop production there were  $6(6-1)/2=15$  pairs of items each.

The respondents were asked to indicate the one item which they preferred over the other in each pair. The respondent was required to indicate his preference in all the pairs and only one item could be preferred in each pair. From the judgement of 120 respondents scale values were derived and the items in the three classes were ranked according to the procedure suggested by Edward (1969).

### **3.3.3 Assessment of agricultural information need and reading behavior of farmer readers.**

#### **3.3.3.1 Assessment of agricultural information need.**

##### **3.3.3.1.1 Assessment of information need on fields of agriculture**

The fields of agriculture on which the information need of farmer readers was assessed were as follows.

- i. Crop production
- ii. Animal husbandry
- iii. Poultry
- iv. Pisciculture
- v. Piggery

##### **3.3.3.1.2. Assessment of information need of important crops**

The information need of farmer readers with respect to important crops assessed was listed below.

- i. Paddy
- ii. Coconut
- iii. Tapioca

- iv. Vegetables
- v. Banana
- vi. Rubber

#### **3.3.3.1.3 Assessments of information need on important aspects of crop production**

The following six aspects of crop production were assessed for information need of farmer readers.

- i. Seeds and sowing
- ii. Manures and fertilizers
- iii. Plant protection
- iv. Processing
- v. Storage
- vi. Marketing

The response to find out how much the farmer readers wanted to know about the above mentioned fields of agriculture, crop and aspects of crop production were recorded in three categories namely, most needed, some what needed and not needed. Weights of 3,2 and 1 were assigned to these categories, respectively for the purpose of scoring.

#### **3.3.3.2 Assessment of reading behaviour**

Reading behaviour of the respondents was assessed with respect to the frequency of reading farm page with the responses collected in four categories, namely, all weeks, once in a fortnight, once in a month, occasionally.



### 3.3.4 Study of the personal characteristics of farmer readers

On the basis of the review of past research studies conducted and relevancy rating done with farm journalists as judges, the following personal characteristics of farmer readers <sup>were</sup> selected for the study.

#### 3.3.4.1 Age

According to Singh and Verma (1987) age determines maturity that a person attains and thereby his capacity to understand, analyse and respond to various stimuli in the environment.

For this study age refers to the number of chronological years completed by the respondent at the time of investigation since his birth.

The respondents were asked to mention their age in terms of completed years at the time of interview. The age of farmer readers were grouped into 5 categories as given below. Then according to the frequencies percentage analysis was done.

Sl No	Category
1	25-34 years
2	35-44
3	45-54
4	55-64
5	65-74

### 3.3.4.2 Educational status

Educational status was operationally defined as the extent of formal education possessed by the respondents at the time of interview.

Alex (1994) adopted the procedure developed by Trivedi (1963) with slight modification to measure the educational status of agricultural labourers.

In this study, educational status of the respondents was measured as per the socio-economic status scale of Trivedi (1963) with slight modifications, as given below.

SL No	Category
1	Can Read only
2	Can Read and Write only
3	Primary
4	Middle
5	High School
6	College

### 3.3.4.3 Size of land holding

This was operationalised as the total area of land possessed by the farmer, measured in hectares. The area under wet land, up land and home steads were measured separately and their summation was taken as size of holding

The holding size were categorised into <sup>seven</sup> items as given below.

SL No	Category (Ha)
1	0.04-0.10
2	0.11-0.20
3	0.21-0.40
4	0.41-0.50
5	0.51-0.60
6	0.61-0.70
7	0.71-0.80

In this study size of land holding refers to the area owned by the respondent for cultivation at the time of interview.

The type of land cultivated was assessed by directly asking the respondents, whether the land is wet, upland or homesteads.

#### **3.3.4.4 Farming Experience**

For the present study, farming experience was operationalised as the period in years for which the farmer reader had been engaged in doing in farming as an occupation.

Farming experience, in this study was measured in terms of the total number of years the farmer reader had been engaged in doing farming activities. The year of farming experience of the farmer readers were grouped into five as given below. According to the frequencies percentage analysis was done.

SL No	Category (in years)
1	05-15
2	16-25
3	26-35
4	36-45
5	46-55

Sawer (1973) pointed out that opportunities for women to participate in farm management was influenced by their limited knowledge and farming experience.

Jaleel (1992) defined farming experience as the actual completed years of experience of the respondent in agriculture.

Raj kumar (1992) found out farming experience did not have any influence on extent of adoption.

Sivaprasad (1997) measured farming experience directly by assigning a score of one for each completed year of experience the farmer had in farming at the time of investigation as followed by Jaleel (1992).

#### **3.3.4.5 Annual Income**

Sindhudevi (1994) measured family income as the total earnings of the family for each year including income from agriculture and non-agricultural sources. This was obtained by directly asking the respondent, the total income of his/her family for each year.

In this study annual income refers to the annual income in rupees obtained by the respondent at the time of interview.

Income was assessed by asking the respondent about the annual income in rupees obtained by the respondent from farming and subsidiary occupation separately.

The total annual income of the farmer readers were grouped into seven as given below and according to frequencies percentage analysis was done.

Sl.No.	Category
1.	400-1000
2.	1001-2000
3.	2001-3000
4.	3001-4000
5.	4001-5000
6.	5001-10,000
7.	Above 10,000

#### **3.3.4.6 Cosmopolitaness**

Cosmopolitaness is operationally conceived as the cumulative score obtained by a respondent on the three categories given below along with their scores in parentheses.

i) How often do you visit the nearest town ?

Never (1) ; once in a month (2); once in a fortnight (3); All days (4).

ii) Why do you visit town ?

Agricultural purposes (2) ; other purposes (1)

iii) Are you a member of any organisations in the town ?

Yes (2) , No (1)

In this study, Thiruvananthapuram the district headquarters was conceived as the

town and the questions asked where with reference to Thiruvananthapuram city alone.

#### **3.3.4.7 Exposure to Mass media**

The responses received while trying to find out how much the farmer readers were exposed to mass media, namely, newspaper, radio, agricultural publications, radio and television were recorded in a six point continuum. The points in the continuum were all days, thrice in a week, twice in a week, once in a fortnight, once in a month and never and the weights were given as 6,5,4,3,2,1 respectively for the purpose of scoring.

#### **3.3.4.8 Attitude towards scientific agricultural practices**

For this study, attitude was defined as the degree of positive or negative disposition of farmer readers towards scientific agricultural practices.

All the farmer readers were requested to respond to each statement in terms of their own agreement or disagreement with the statement on a five point continuum, namely, strongly agree, agree, undecided, disagree and strongly disagree.

The responses were assigned numerical weights as 5,4,3,2,1 for positive statements and negative statements were scored in the reverse manner.

The attitude scores of the respondents were obtained by adding up the scores corresponding to their response pattern for each statement.

### **3.4 Tools for data collection**

#### **3.4.1 Check-list**

To collect data for analysing the content of articles published in Farm Page, a check-list was developed (Appendix - I). Data on the number of articles published with

respect to the different fields of agriculture, different crops and different aspects of crop production in the Farm Pages of the newspaper studied were collected by using the check-list.

#### **3.4.2 Interview schedule**

To collect data for identifying the preference of farmer readers towards the content and to assess their agricultural information need and reading behaviour, and also to study the personal characteristics, a structured interview schedule was developed. The schedule was tested among the farmer readers of a non-sample area and necessary modifications were made to remove ambiguity. The pre-tested interview schedule is presented as Appendix II. Responses of the farmer readers were collected by investigator personally by adopting interview technique.

#### **3.5 Statistical tools employed**

The data collected from the farmer readers were coded, tabulated and analysed. Frequencies and percentages were estimated and ranks were found out.

##### **3.5.1 Percentage analysis**

Percentage analysis were carried out in the case of content analyses, agricultural information need, reading behaviour and personal characteristics.

##### **3.5.2 The paired comparison technique**

The data for identifying the preference of farmer readers towards the content were processed by paired comparison technique developed by Thurstone (1927). Accordingly, the F and Z matrices were prepared.

**F-Matrix:**

From the judgements of the respondents the F-Matrix was constructed using the frequencies where the cell entries correspond to the frequency with which the column stimulus was judged more favourable than the row stimulus.

**P-Matrix:**

For each cell entry in the F-Matrix, proportion entries were made in the P-Matrix by dividing them by N, where N was the total number of respondents who made the judgements. The cell entries of P-Matrix gave the proportion of times the column stimulus was judged more favourable than the row stimulus.

**Z-Matrix:**

By means of the table of normal deviates, Z, corresponding to the proportion P of a dichotomised unit normal distribution given by Edwards (1969), the entries of Z-Matrix were obtained. The sum of normal deviates corresponding to the proportion for the individual field of agriculture or aspect of crop production as the case may be, were calculated and the arithmetic means were found out. In order to get a positive scale, a constant was added to the deviation scale values. The scale value was taken as the score preference made by the respondents.



The data for assessing agricultural information need, reading behaviour and the personal characteristics of farmer readers, were coded, tabulated and analysed in frequencies and percentages.

### 3.5.3 Simple correlation

The nature and degree of relationship between the personal characteristic with reading behaviour and agricultural information need were determined by simple linear correlation.

The formula used to compute the simple correlation was

$$r_{xy} = \frac{C_{xy}}{S_x S_y}$$

$r_{xy}$  : Correlation between x and y

$C_{xy}$  : Product moment of x and y

$S_x, S_y$  : Standard deviation of the distribution of x and y

### 3.5.4. Test of association

For testing the association of attributes test of association was carried out. In this present study this was done by using Chi-square test. The formula for Chi-square test is

$$\chi^2 = \sum \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

$O_{ij}$  = Observed values

$E_{ij}$  = Expected values.

## **RESULTS**

## **CHAPTER IV**

### **RESULTS**

The results of the study are presented in this chapter under the following heads.

- 4.1. Analysis of the content of articles published in farm page.
- 4.2. Identification of the preference of the farmer readers towards the content.
- 4.3. Assessment of the agricultural information need and reading behaviour of farmer readers.
- 4.4. Study of personal characteristics of farmer readers.

#### **4.1 Analysis of the content of articles published in Farm Page.**

The content of articles published in farm page were analysed with respect to the following categories.

- i) Field of agriculture
- ii) Crop
- iii) Aspect of crop production

##### **4.1.1 Field of agriculture**

The distribution of articles published for 1997 from three newspapers according to the field of agriculture is furnished in Table 4.1.1

**Table. 4.1.1 Distribution of articles published according to the field of agriculture.**

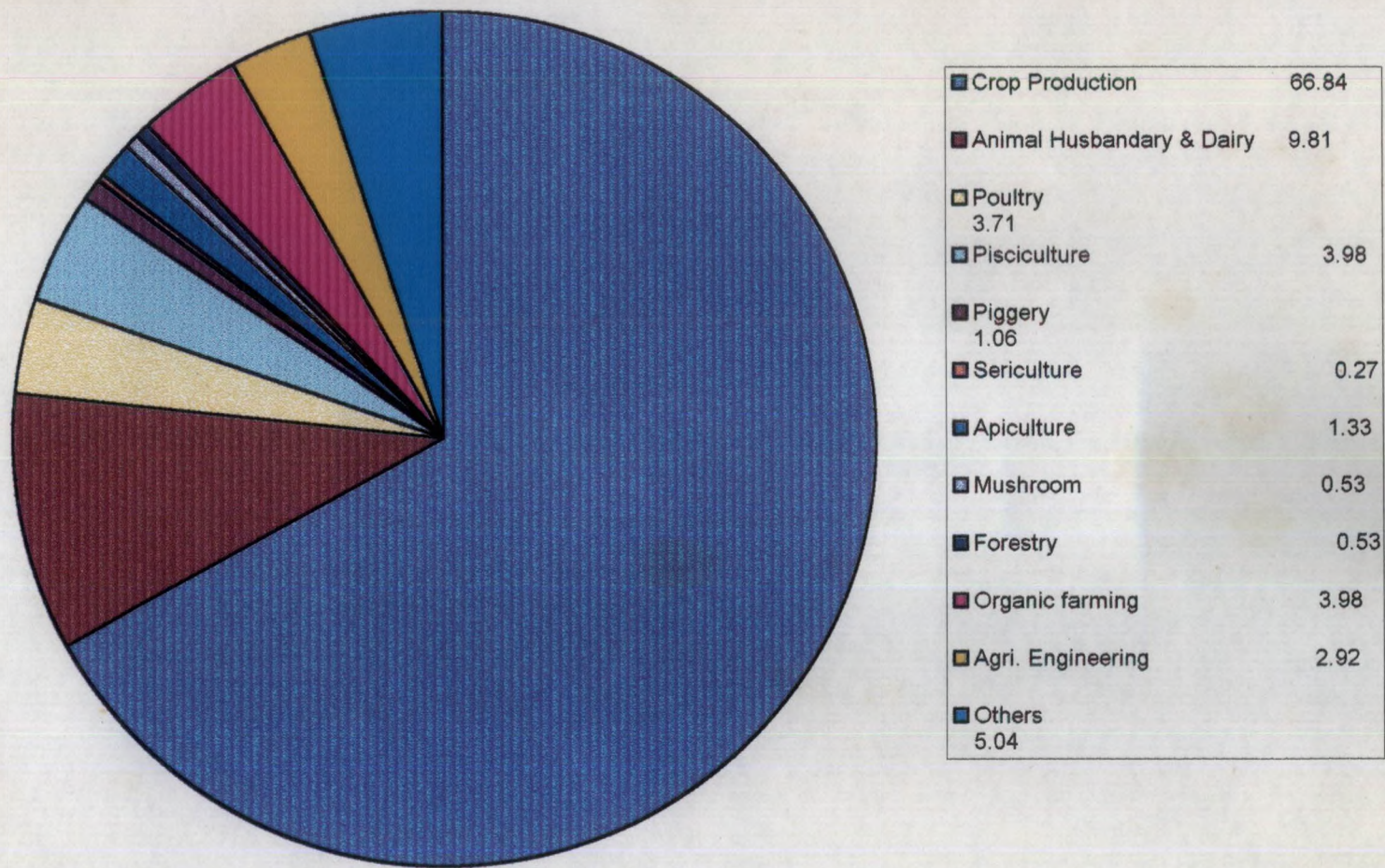
Sl.No.	Field of agriculture	Number of articles published	Percentage	Rank
1.	Crop production	252	66.84	I
2.	Animal husbandry and Dairy	37	9.81	II
3.	Others	19	5.04	III
4.	Organic farming	15	3.98	IV
5.	Pisciculture	15	3.98	IV
6.	Poultry	14	3.71	VI
7.	Agricultural Engineering	11	2.92	VII
8.	Apiculture	5	1.33	VIII
9.	Piggery	4	1.06	IX
10.	Mushroom	2	0.53	X
11.	Forestry	2	0.53	X
12.	Sericulture	1	0.27	XII
	Total	377	100.0	

The data in table 4.1.1 reveals that out of the total number of 377 articles published, 252 were in the field of crop production. Thus majority (66.84%) of the articles published were in crop production. Thirty seven articles were published under Animal husbandry and dairy. Fifteen articles each were published in the field of pisciculture and organic farming, closely followed by poultry with 14 articles published. The least number of articles published was under sericulture(1). The other field of agriculture in which articles published were, namely mushroom (2), Forestry(2) apiculture(5) and agricultural engineering (11). Based on the number of articles published, the first five ranks obtained by the different fields of agriculture were first rank for crop production, second rank for Animal husbandry and dairy and third rank for other fields of agriculture. The fourth rank was shared by pisciculture and organic farmig. The diagramantic representation of the articles published according to field of agriculture is presented in figure(2)

The distribution of articles published according to the crop is presented in Table 4.1.2

**Table 4.1.2 Distribution of articles published according to the crops.**

SI No.	Name of crops	Number of articles published	Percentage	Rank
1.	Vegetables	49	19.44	I
2.	Rubber	39	15.48	II
3.	Coconut	25	9.92	III
4.	Rice	19	7.54	IV
5.	Fruits	19	7.54	IV
6.	Spices	16	6.35	VI
7.	Medicinalplants	12	4.76	VII
8.	Banana	12	4.76	VII
9.	Orchid, Anthurium	11	4.37	IX
10.	Coffee	10	3.96	X
11.	Other garden plants	9	3.57	XI
12.	Tubers	5	1.98	XII
13.	Arecanut	4	1.59	XIII
14.	Betelvine	4	1.59	XIII
15.	Fodder	4	1.59	XIII
16.	Tapioca	3	1.19	XVI
17.	Cashew	3	1.19	XVI
18.	Pulses	3	1.19	XVI
19.	Jasmine	3	1.19	XVI
20.	Oilseeds	1	0.40	XX
21.	Sugarcane	1	0.40	XX
	Total	252	100.0	



**Fig 2. Diagram showing the distribution of articles published according to the field of agriculture.**

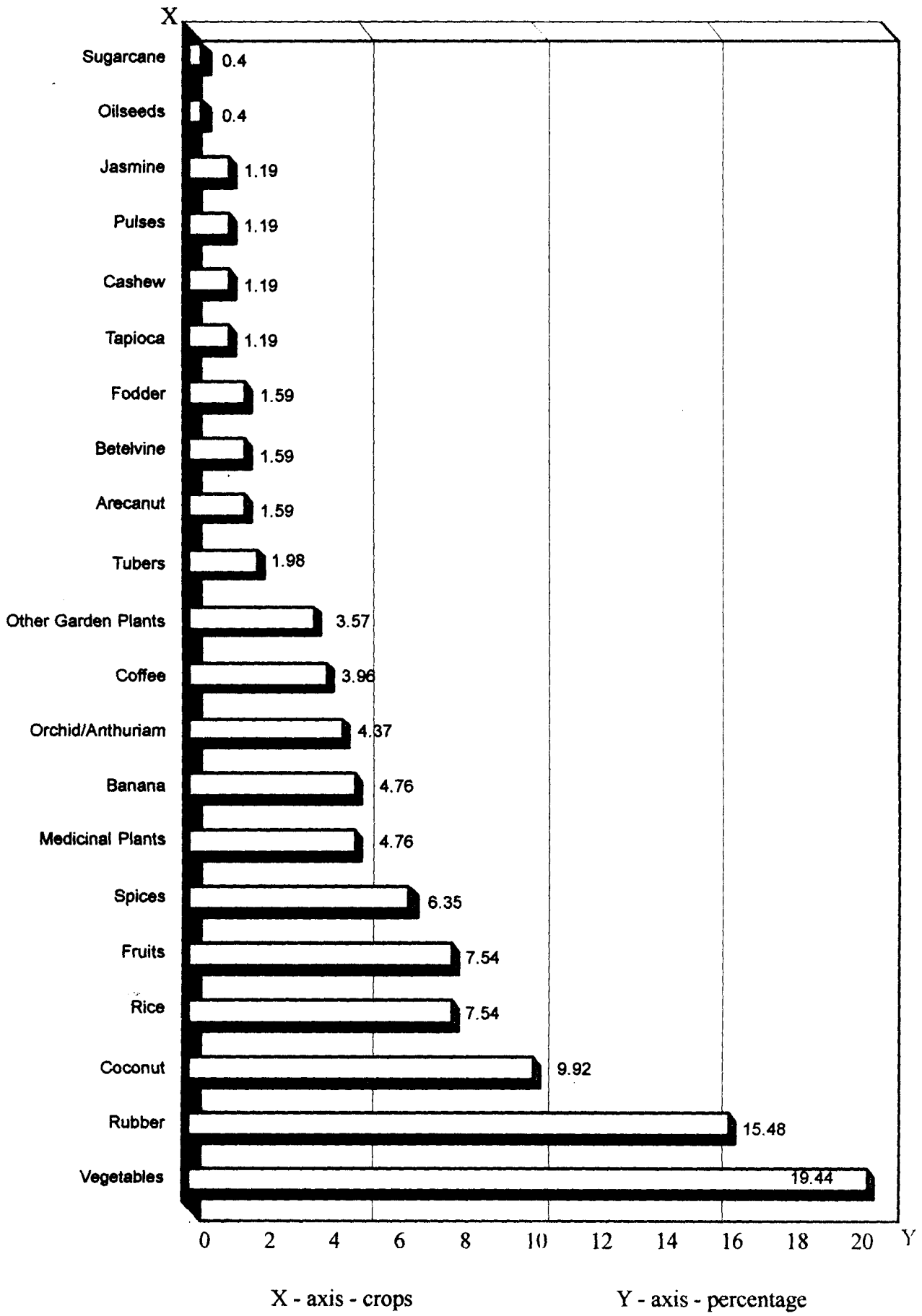
A perusal of the data in Table 4.1.2 brings to light that the total number of 252 articles published in the field of agriculture, namely, crop production were distributed over 21 crops. Forty nine articles were published under vegetables, followed by the crops rubber (39) and coconut (25). The number of articles published in rice and fruit crops were only 19 each. Sixteen articles were published under spices and twelve each under banana and medicinal plants. Majority (19.44%) of the articles, published were under vegetables and it secured the first rank, followed by rubber with the second rank. Though coconut is an important crop in Kerala it secured only the third position with respect to the number of articles published. Rice and fruit crops shared the 4th rank. It shows that fruit plants were equally important as rice with reference to the number of articles published. Spices were placed, in the sixth rank. The least number of articles published under crops are sugarcane and oilseeds (one each). The diagrammatic representation of articles published according to the crop is presented in Fig.(3).

#### 4.1.3. Aspects of crop production

The distribution of articles published according to the aspect of crop production is given in Table.4.1.3.

**Table 4.1.3. Distribution of articles published according to the aspects of crop production.**

Sl.No	Aspects of crop production	Number of articles published	percentage	Rank
1.	Cultivation	145	57.54	I
2.	Seeds and sowing	26	10.32	II
3.	Plant protection	26	10.32	II
4.	Processing	23	9.13	IV
5.	Manures and fertilizers	9	3.57	V
6.	Intercultural operations	8	3.17	VI
7.	Marketing	7	2.78	VII
8.	Storage	3	1.19	VII
9.	General aspects	3	1.19	VIII
10.	Harvesting	2	0.79	X
	Total	252	100.00	



**Fig: 3 Diagram showing the distribution of articles according to the crops**



The data furnished in Table 4.1.3 shows that out of the total number of 252 articles published under crop production, nearly 60% were dealing with cultivation aspect of crop production. Twenty six articles each were published under seeds and sowing and plant protection. While 23 articles were published under processing, nine were published under manures and fertilizers, eight under intercultural operations and seven under marketing. Harvesting and storage were got the last priority.

Majority (57.54%) of the articles published dealt with the cultivation aspect of crop production and this category occupied the first rank. Second rank was shared by seeds and sowing (10.32%) and plant protection (10.32%). The fourth, fifth, sixth and seventh ranks were secured by processing (9.13%), Manures and Fertilizers (3.57%), Intercultural operations (3.17%), and marketing (2.78%) respectively. The eight rank was shared by storage (1.19%) and general aspects (1.19). Harvesting secured the tenth rank. The diagrammatic representations of the articles published according to aspect of crop production is presented in fig(4).

## **4.2 Identification of preference of the farmer readers towards the content.**

### **4.2.1 Reading preference towards different fields of agriculture.**

The following matrix (Table 4.2.1.1) gives the frequency with which each of the fields of agriculture shown in the column was preferred over each of the fields of agriculture shown in the row. This refers to the judgments made by the 120 farmer readers about their preference towards five fields of agriculture.

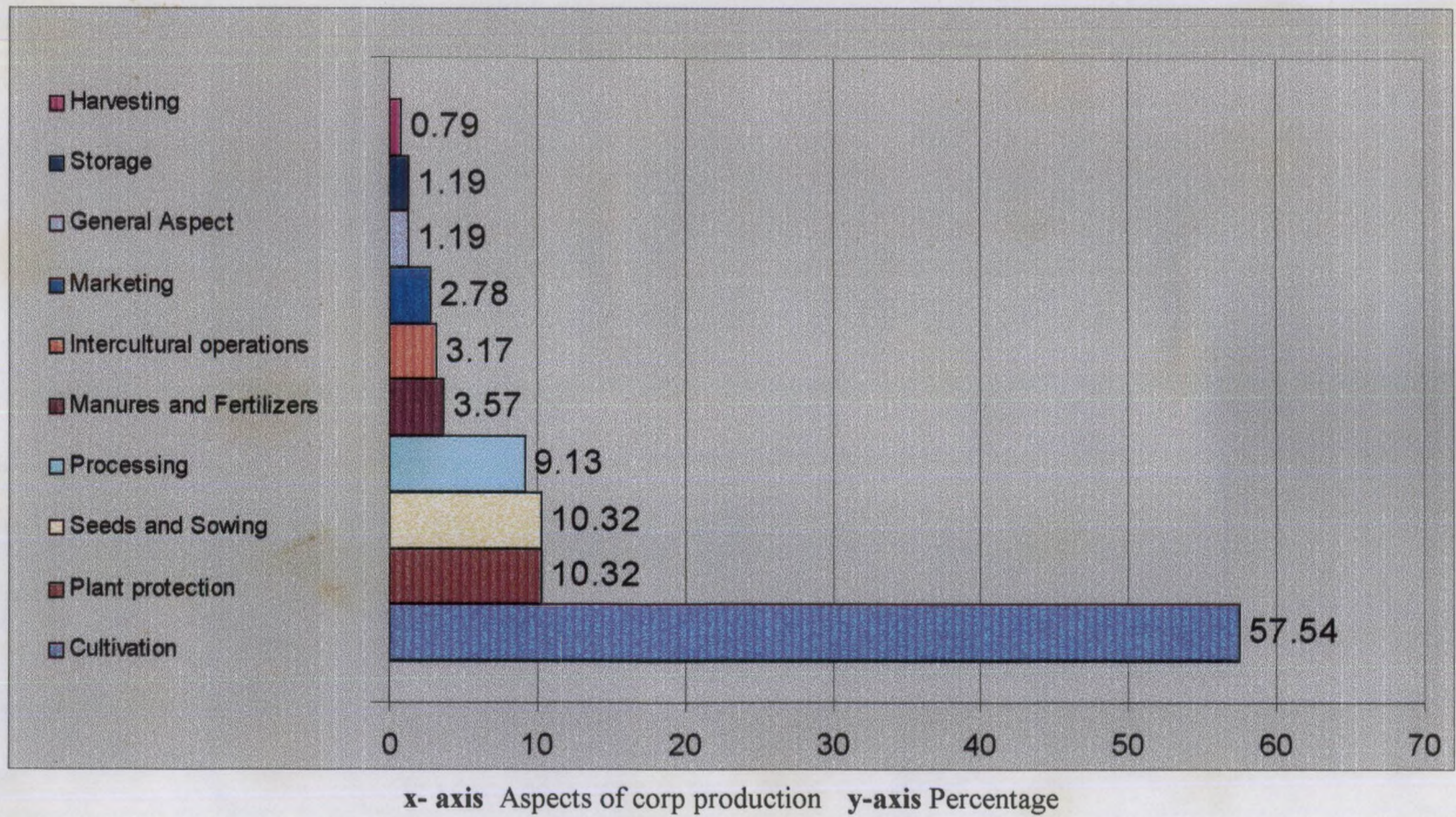


Fig 4. Diagram showing the distribution of articles according to aspects of crop production.

**Table 4.2.1.1**Frequency matrix for the five fields of agriculture judged by the respondents

N = 120

	Crop Production	Animal husbandry	Poultry	Pisci-culture	Piggery
Crop production	-	4	11	5	1
Animal husbandry	116	-	64	12	2
Poultry	109	56	-	12	3
Pisciculture	115	108	108	-	5
Piggery	119	118	117	115	-

For each cell entry in the frequency matrix proportion entries were made in the P matrix by dividing them by 120, being the total number of respondents who made the judgment. The proportion matrix is furnished in Table 4.2.1.2.

**Table 4.2.1.2** proportion matrix for the five fields of agriculture judged by the respondents.

N = 120

	Crop Production	Animal husbandry	Poultry	Pisci-culture	Piggery
Crop production	-	0.033	0.092	0.042	0.008
Animal husbandry	0.967	-	0.533	0.100	0.017
Poultry	0.908	0.467	-	0.100	0.025
Pisciculture	0.958	0.900	0.900	-	0.042
Piggery	0.992	0.983	0.975	0.958	-

By means of the table of normal deviates, the entries of Z-matrix were obtained which are given in Table 4.2.1.3.

**Table 4.2.1.3 Z-matrix for the five fields of agriculture judged by the respondents.**

N = 120

	Crop Production	Animal husbandry	Poultry	Pisci- culture	Piggery
Crop production	-	-1.838	-1.329	-1.728	-2.409
Animal husbandry	1.838	-	0.083	-1.292	-2.120
Poultry	1.329	-0.083	-	-1.282	-1.960
Pisciculture	1.728	1.282	1.282	-	-1.728
Piggery	2.409	2.120	1.960	1.728	-
Sums	7.304	1.481	1.996	-2.564	-8.217
Means	1.461	0.296	0.399	-0.513	-1.643
Mean+1.643	3.104	1.939	2.042	1.130	0.000

The derived scale values of the five fields of agriculture according to the preference of the farmer readers are given in Table 4.2.1.4 with their respective ranks.

**Table 4.2.1.4 Scale values and ranks of the five fields of agriculture.**

Sl.No	Fields of agriculture	Scale value	Rank according to reading preference
1.	Crop production	3.104	I
2.	Animal husbandry	1.939	III
3.	Poultry	2.042	II
4.	Pisciculture	1.130	IV
5.	Piggery	0.000	V

Table 4.2.1.4 reveals that crop production secured first rank according to the reading preference of farmer readers, followed by poultry, animal husbandry, pisciculture and piggery in that order.

#### 4.2.2. Reading preference towards different crops

The frequency matrix showing the number of farmer readers who have preferred each of the different crops given as column headings over each crop given as row headings is presented in Table 4.2.2.1.

**Table 4.2.2.1** Frequency matrix for the six different crops judged by the respondents

N = 120

<i>crops</i>	<i>Rice</i>	Coconut	Tapioca	Vegetable	Banana	Rubber
Rice	-	47	37	49	55	21
Coconut	73	-	7	13	20	15
Tapioca	83	113	-	90	98	33
Vegetable	71	107	30	-	88	34
Banana	65	100	22	32	-	30
Rubber	99	105	87	86	90	-

The proportion matrix prepared from the frequency matrix is presented in Table 4.2.2.2.

**Table 4.2.2.2** Proportion matrix for the six different crops judged by the respondents

N = 120

<i>crops</i>	<i>Rice</i>	Coconut	Tapioca	Vegetable	Banana	Rubber
Rice	-	0.392	0.308	0.408	0.458	0.175
Coconut	0.608	-	0.058	0.108	0.670	0.125
Tapioca	0.692	0.942	-	0.750	0.817	0.275
Vegetable	0.592	0.892	0.250	-	0.733	0.283
Banana	0.542	0.833	0.183	0.267	-	0.250
Rubber	0.825	0.875	0.725	0.717	0.750	-

The entries of Z-matrix were obtained by means of the table of normal deviates and are furnished in Table 4.2.2.3.

**Table 4.2.2.3 Z-matrix for the six different crops judged by the respondents.**

N = 120

Crops	Rice	Coconut	Tapioca	Vegetable	Banana	Rubber
Rice	-	-0.274	-0.502	-0.233	-0.105	-0.935
Coconut	0.274	-	-1.572	-1.237	-0.966	-1.150
Tapioca	0.502	1.572	-	0.674	0.904	-0.598
Vegetable	0.233	1.237	-0.674	-	0.622	-0.574
Banana	0.105	0.966	-0.904	-0.622	-	-0.674
Rubber	0.935	1.150	0.598	0.574	0.674	-
Sums	2.049	4.651	-3.054	-0.844	1.129	-3.931
Means	0.342	0.775	-0.509	-0.141	0.188	-0.655
Means +0.655	0.997	1.430	0.146	0.514	0.843	0.000

The scale values and ranks calculated on the basis of the judgment of 120 farmer readers about their reading preference towards the different crops are given in Table 4.2.2.4.

**Table 4.2.2.4 Scale values and ranks of the six different crops**

Sl.No	Name of crops	Scale value	Rank according to reading preference
1.	Rice	0.997	II
2.	Coconut	1.430	I
3.	Tapioca	0.146	V
4.	Vegetable	0.514	IV
5.	Banana	0.843	III
6.	Rubber	0.000	VI

Table 4.2.2.4 shows that coconut secured first rank according to the reading preference of the farmer readers, followed by rice, banana, vegetable, tapioca and rubber in that order.

### 4. 2. 3. Reading preference towards different aspects of crop production.

The judgment made by 120 farmer readers about their preference towards six different aspects of crop production is shown in Table 4.2.3.1 This refers to the frequency matrix showing the number of farmer readers who have preferred each of the different aspects of crop production given as column headings over each aspect of crop production given as row headings.

**Table 4.2.3.1** Frequency matrix for the six different aspects of crop production judged by the respondents. N= 120

	Seeds and sowing	Manures and fertilizers	Plant protection	Processing	Storage	Marketing
Seeds and sowing	-	13	37	17	18	39
Manures and Fertilizers	107		78	17	19	54
Plant protection	83	42		10	15	45
Processing	103	103	110	-	32	87
Storage	102	101	105	88	-	103
Marketing	81	66	75	33	17	-

The proportion entries were made in the P matrix from frequency matrix by dividing the each cell entry by 120, being the total number of respondents who made judgment. The proportion matrix is furnished in Table 4.2.3.2

**Table 4.2.3.2 Proportion matrix for the six different aspects of crop production judged by the respondents.**

	Seeds and sowing	Manures and fertilizers	Plant protection	Processing	Storage	Marketing
Seeds and sowing	-	0.108	0.308	0.142	0.150	0.325
Manures and fertilizers	0.892	-	0.650	0.142	0.158	0.450
Plant protection	0.692	0.350	-	0.083	0.125	0.375
Processing	0.858	0.858	0.917	-	0.267	0.725
Storage	0.850	0.842	0.875	0.733	-	0.858
Marketing	0.675	0.550	0.625	0.275	0.142	-



The Z-matrix prepared from the proportion matrix by means of the table of normal deviates and are furnished in Table 4.2.3.3

**Table 4.2.3.3 Z-matrix for the six different aspects of crop production judged by the respondent.**

	Seeds and sowing	Manures and ferti-zers	Plant prote-ction	processing	Storage	Marke-ting
Seeds and sowing	-	-1.237	-0.502	-1.071	-1.036	-0.454
Manures and fertili-zers	1.237	- -	0.385	-1.071	-1.003	-0.126
Plant protection	0.502	-0.385	- -	-1.385	-1.150	-0.319
Processing	1.071	1.071	1.385	- -	-0.622	0.598
Storage	1.036	1.003	1.150	0.622	- -	1.071
Marketing	<del>0.454</del>	<del>0.126</del>	<del>0.319</del>	<del>-0.598</del>	<del>-1.071</del>	-
Sums	4.300	0.578	2.737	-3.503	-4.882	0.770
Means	0.717	0.096	0.456	-0.584	-0.814	0.128
Means +0.814	1.531	0.910	1.270	0.230	0.000	0.942

The obtained scale values of the six different aspects of crop production according to the preference of the farmer readers are given in Table 4.2.3.4 with their respective ranks.

**Table 4.2.3.4 Scale values and ranks of the six different aspects of crop production.**

Sl.No	Aspects of crop production	Scale value	Rank according to reading preference
1.	Seeds and sowing	1.531	I
2.	Manures & fertilizer	0.910	IV
3.	Plant protection	1.270	II
4.	Processing	0.230	V
5.	Storage	0.000	VI
6.	Marketing	0.942	III

Table 4.2.3.4 reveals that seeds and sowing secured first rank according to the reading preference of the farmer readers, followed by plant protection, marketing, manures and fertilizers, processing and storage in that order.

### 4.3 Assessment of agriculture information need and reading behaviour of the farmer readers.

#### 4.3.1 Information need towards different fields of agriculture.

The frequency distribution of information need of farmer readers towards different fields of agriculture is shown in Table 4.3.1.

**Table 4.3.1 Information need of respondents in different fields of agriculture.**

N = 120

Field of agriculture \ Extent of information need	Very much		Some what		Not needed	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Crop production	94	78.33	26	21.67	0	0
Animal husbandry	49	40.83	71	59.17	0	0
Piggery	2	1.67	5	4.16	113	94.17
Poultry	21	17.50	94	78.33	5	4.16
Fisheries	15	12.50	65	54.17	40	33.33

Data furnished in Table 4.3.1 shows that as much as 78% of farmer readers were very much in need of information on crop production. The farmer readers who were very much in need of information on animal husbandry were nearly 41 percent. The table also reveals that about 94% of farmer readers did not need information on piggery and about 33% of them did not need information on fisheries.

#### 4.3.2. Information need towards important crops.

The information need towards important crops of farmer readers with frequency and percentage is shown in Table 4.3.2

**Table 4.3.2 Information need of respondents on important crops**

N = 120

Name of Crops	Extent of information need		Very much		Some what		Not needed	
	Fre - quency	Perce - tage	Fre - quency	Perce - tage	Fre - quency	Perce - tage	Fre - quency	Perce - tage
Rice	91	75.83	22	18.33	7	5.84		
Coconut	109	90.83	11	9.17	0	0.00		
Tapioca	10	8.33	77	64.17	33	27.50		
Vegetable	27	22.50	84	70.00	9	7.50		
Banana	34	28.33	84	70.00	2	1.67		

It is evident from the table 4.3.2. that majority (90.83%) of the farmer readers needed information very much on coconut followed by rice (75.83%), banana (28.33%), vegetable (22.50%) and tapioca (8.33%) in that order. Seventy percent of farmer readers needed information some what on vegetable and banana, followed by tapioca (64.17%) rice (18.33%) and coconut (9.17%). The farmer readers who did not need information on tapioca were 27.50 percent.

#### 4.3.3 Information need towards important aspects of crop production.

Farmer reader's information need towards important aspects of crop production with frequency and percentage is shown in Table. 4.3.3

**Table 4.3.3 Information need of respondents on important aspects of crop production.**

Extent of information need Aspect of crop production	Very much		Some what		Not needed	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Seeds and Sowing	108	90.00	12	10.00	0	0.00
Manures and Fertilizers	19	15.83	77	64.17	24	20.00
Plant Protection	20	16.67	89	74.17	11	9.16
Processing	21	17.50	69	57.50	30	25.00
Storage	20	16.67	71	59.17	29	24.16
Marketing	39	32.50	70	58.33	11	9.17

Table 4.3.3 shows that majority(90%) of the farmer readers needed information very much on seeds and sowing, followed by marketing(32.50%), processing (17.50%), plant protection(16.67%), storage(16.67%) and manures and fertilizers (15.83%).

The farmer readers needed information 'somewhat' on aspects of crop production namely plant protection (74.17%),manures and fertilizers (64.17%), storage(59.17%), marketing (58.33%), processing (57.50%) and seeds and sowing (10%) in that order.

Twenty five percent of the farmer readers did not need information on processing.

#### 4.3.4 Assessment of reading behaviour of farmer readers.

The frequency of reading farm page by the farmer readers with their number and percentage is shown in Table 4.3.4

Table. 4. 3. 4. Frequency of reading farm page by the respondents.

N : 120

Frequency	Number	Percentage
All weeks	97	80.84
Once in a fortnight	22	18.33
Once in a month	1	0.83
Occasionally	0	0.00

Table 4.3.4 shows that majority (80.84%) of the farmer readers read farm page all weeks and 18.33% of them read once in a fortnight. The farmer readers who read the farm page once in a month only 0.83%.

#### 4.3.5 Preference towards mode of presentation

The preference towards mode of presentation by the respondents are shown in Table 4.3.5

**Table 4.3.5 Preference of respondents towards mode of presentation**

N : 120

Mode of presentation	Preference			percentage		
	Ist	IIInd	IIIInd	Ist	IIInd	IIIrd
Success Stories	107	8	5	89.17	6.67	4.16
Articles	10	36	74	8.33	30.00	61.67
Question/Answer	3	76	41	2.50	63.33	34.17

Table 4.3.5 revealed that 89.17% of the respondents indicate success stories as their first preference followed by articles (8.33%) and question/answer (2.50%)

#### 4.3.6 Preference towards type of publication

The preference towards type of publication by the respondents are shown in Table 4.3.6.

**Table 4.3.6 Preference of respondents towards type of publication.**

N=120

Type of Publication	Preference			Percentage		
	Ist	IIInd	IIIInd	Ist	IIInd	IIIrd
Newspaper	104	14	2	86.67	11.67	1.66
Magazines	14	59	47	11.67	49.16	39.17
Leaflets/Pamphlets	2	47	71	1.66	39.17	59.17



The results of the table 4.3.6 showed that 86.67% of the farmer readers preferred newspaper as their first preference towards type of publication followed by 11.67% for magazines and 1.66% for leaflets and pamphlets.

#### 4.4 Study of the personal characteristics of farmer readers.

##### 4.4.1 Age

The data regarding the age of farmer readers are presented in Table 4.4.1

**Table 4.4.1 Distribution of respondents according to age**

N = 120

Age Group	Frequency	Percentage
25 - 34	21	17.50
35 - 44	41	34.17
45 - 54	31	25.83
55 - 64	20	16.67
65 - 74	7	5.83

The data furnished in the above table reveals that 34.17% of farmer readers selected belonged to the age group 35 - 44 years, while 25.83% belonged to the age group of 45-54 years. As much as 17.5% of the farmer readers belonged to the age group of 25-34 years, where as 16.67% belonged to age group of 55-64 years, only 5.83% belonged to the age group of 65-74 years.

#### 4.4.2 Educational Status.

The frequency and percentage related to education status of farmer readers selected shown in table 4.4.2.

**Table 4.4.2 Educational status of respondents**

N = 20

Educational Stuats	Frequency	Percentage
Read only	1	0.83
Can read and write	2	1.67
Primary	5	4.17
Middle	25	20.83
High School	66	55.00
College	21	17.50



Table 4.42 revealed that majority (55%) of the farmer readers had undergone high school education and that middle school education was acquired by 20.83%. The farmer readers who had undergone collegiate education was 17.50% and those who had undergone primary education was only 4.17%. The farmer readers who could only read and those who could read and write were very negligible as 0.83% and 1.67% respectively.

#### 4.4.3 Size of land holding

The details on the size of land holding of the respondents are furnished in Table 4.4.3 and 4.4.3.2  
**Table. 4. 4. 3. 1. Size of land holding of respondents.**

Category (ha)	Wet land		Upland		Homestead	
	No.	Percentage	No.	Percentage	No.	Percentage
0.04-0.10	34	28.33	20	16.67	94	78.33
0.11-0.20	17	14.17	38	31.67	18	15.00
0.21-0.40	7	5.83	42	35.00	1	0.83
0.41-0.50	-	-	2	1.67	1	0.83
0.51-0.60	2	1.67	2	1.67	-	-
0.61-0.70	1	0.83	1	0.83	-	-
0.71-0.80	-	-	5	4.17	1	0.83
<b>Total</b>	<b>61</b>	<b>50.83</b>	<b>110</b>	<b>91.68</b>	<b>115</b>	<b>95.82</b>

The data in Table 4.4.3 shows that 50.83% of the farmer readers were having wet land, 91.68% upland and 95.82% homesteads.

**Table 4.4.3.2. Size of land holding of respondents**

N = 120

Category(Ha)	Wetland	Upland		Homestead		Wetland + Upland		Wetland + Homestead		Homestead Upland		Wetland Upland Homestead		Total	
		No.	percentage	No.	percentage	No.	percentage	No.	percentage	No.	percentage	No.	percentage	No.	percentage
0.04 - 0.10	-	-	-	3	2.5	-	-	1	0.83	3	2.50	1	0.83	8	6.66
0.11-0.20	-	-	-	1	0.83	1	0.83	-	-	11	9.17	3	2.50	16	13.33
0.21-0.40	-	-	-	-	-	1	0.83	3	2.5	29	24.17	21	17.50	54	45.00
0.41-0.50	-	-	-	-	-	-	-	-	-	8	6.67	8	6.67	16	13.34
0.51-0.60	-	-	-	-	-	-	-	-	-	2	1.67	5	4.17	7	5.84
0.61-0.70	-	-	-	-	-	-	-	-	-	1	0.83	3	2.50	4	3.33
0.71-0.80	-	1	0.83	-	-	3	2.5	-	-	1	0.83	3	2.50	8	6.66
> 0.80	-	-	-	-	-	-	-	-	-	-	-	7	5.83	7	5.83
Total		1	0.83	4	3.33	5	4.17	4	3.33	55	45.83	51	42.50		

The table 4.4.3.2 revealed that majority (45%) of the farmer readers were having land holding between 0.21- 0.40 ha.

#### 4.4.4 Farming experience

The data regarding the farming experience of farmer readers are presented in Table 4.4.4.

**Table 4.4.4 Farming experience of respondents**

N = 120

Experience in years	Frequency	Percentage
05 - 15	36	30.00
16 - 25	48	40.00
26 - 35	27	22.50
36 - 45	7	5.83
46 - 55	2	1.67

From the table 4.4.4 it is observed that majority (40%) of the farmer readers had farming experience between 16 and 25 years, which is followed by 5-15 years (30%), 26-35 years (22.5%). A nominal portion of farmer readers comes under the category 36-45 years (5.83%) and 46-55 years (1.67%)

#### 4.4.5 Annual income

Annual income of farmer readers both from main and subsidiary occupation are furnished in table 4.4.5

**Table. 4.4.5. Annual income of respondents.**

Annual income (Rs)	Main occupation		Subsidiary Occupation							
			Labour		Business		Govt. servant		Others	
	No.	percentage	No.	percentage	No.	percentage	No.	percentage	No.	percentage
400 - 1000	14	11.67	-	-	1	0.83	-	-	1	0.83
1001- 2000	43	35.83	4	3.33	1	0.83	-	-	1	0.83
2001- 3000	18	15.00	-	-	1	0.83	-	-	-	-
3001- 4000	9	7.50	4	3.33	-	-	-	-	-	-
4001- 5000	14	11.67	9	7.50	6	5.00	-	-	-	-
5001-10000	13	13.83	5	4.17	7	5.83	-	-	1	0.83
Above 10000	9	7.50	-	-	2	1.66	10	8.34	2	1.66

The analysis of the above table reveals that 35.83% of farmer readers were having annual income from main occupation of Rs.1001-2000 category. The farmer readers who belonged to the category Rs.5001-10000 was 13.83% and those who had annual income above rupees 10,000 were only 7.5%. Among the respondents majority (7.50%) of them having subsidiary annual income from labour belonged to the category Rs. 4001-5000, and business (5.83%) belonged to the category Rs.5001 -10,000. The farmer readers (8.34%) who were in government service had subsidiary annual income above Rs.10,000

#### 4.4.6 Cosmopolitanness

The frequency of visit to nearest city by the respondents with calculated percentage is shown in Table 4.4.6.1

**Table 4.4.6** Frequency of visit to nearest city by the respondents.

N = 120

Schedule of visit	Frequency	Percentage
On all days	13	10.83
Once in a week	57	47.53
Once in a fortnight	34	28.33
Once in a month	16	13.34
Never	0	0.00

The data in table 4.4.6 reveals that majority (47.53%) of the respondents visited the nearest city once in a week and 28.33% farmer readers once in a fortnight. The percentage of farmer readers who visited the nearest city on all days came to only 10.83% and 13.34% of them visited once in a month.

The frequency and percentage with regard to purpose of visit is shown in table 4.4.6.2

**Table 4.4.6.2** Purpose of visit to nearest city by the respondents

N = 120

Purpose	Frequency	Percentage
Agriculture	10	08.33%
Other	110	91.67%

The data in table 4.4.6.2 shows that the farmer readers who visited the city for agricultural purpose was only 8.33%.

The data regarding membership owned by the respondents in organisations is furnished in table 4.4.6.3

Table 4.4.6.3 Membership of respondents in organisations.

N = 120

	Frequency	Percentage
Member	4	3.33
Non-member	116	96.67

The data in table 4.4.6.3 reveals that only 3.33% of the respondents were having membership in organisations.

#### 4.4.7 Mass media exposure

The data pertaining to mass media exposure of the farmer readers is given in table 4.4.7

Table 4.4.7 Mass media exposure of respondents.

N = 120

Frequency Mass media	All days		Thrice in a week		Twice in a week		Once in a a fortnight		Once in month		Never	
	No.	percen tage	No.	percen tage	No.	percen tage	No.	percen tage	No.	percen tage	No.	percen tage
News paper	119	99.17	-	-	1	0.83	-	-	-	-	-	-
Radio	70	58.33	16	13.33	15	12.50	3	2.50	2	1.67	14	11.67
Agricultural Magazine	-	-	-	-	1	0.83	47	39.17	7	5.83	65	54.17
Television	68	56.66	27	22.50	14	11.67	2	1.67	1	0.83	8	6.67

It is evident from the above table that 99.17% of the farmer readers were reading newspaper daily. None of the respondent was reading magazines on all days. Those who respond to radio and television on all days were 58.33% and 56.66% respectively. The farmer readers who never read magazines 54.17% and were those who read once in fortnight were 39.17%.

#### 4.4.8. Attitude towards scientific agricultural practices.

The attitude score of farmer readers towards scientific agricultural practices are shown in Table 4.4.8

Attitude Score	Category	Frequency	Percentage
14-33	Low level	0	0
34-52	Medium level	22	18.33
53-70	High level	98	81.67

Table 4.4.8 revealed that majority (81.67%) of the farmer readers possessed high level of attitude followed by medium level of attitude towards scientific agricultural practices(18.33%). Not even a single farmer reader had low level of attitude towards scientific agricultural practices.

#### 4.4.9 Relationship of the selected personal characteristics of farmer readers with their reading behaviour and agricultural information need.

Correlation analysis was done to find out the direction and intensity of relationship between the personal characteristics of farmer reads and each of the dependent variables, namely, reading behaviour and agricultural information need.

##### 4.4.9.1 Correlation between reading behaviour and selected personal characteristics.

The results of the simple correlation analysis showing the relationship of reading behaviour with selected personal characteristics are shown in Table 4.4.9.1

**Table 4.4.9.1 Correlation between reading behaviour and selected personal characteristics.**

Variable	Description	Correlation Coefficient
x1	Age	- 0.1135
x2	Education	0.2350 *
x3	Size of land holding	0.2573 **
x4	Farming experience	-0.0878
x5	Annual income	0.1076
x6	Cosmopolitanism	-0.0273
x7	Mass media exposure	0.1133
x8	Attitude towards scientific agricultural practices	0.1349

\* significant at 0.05 level

\*\* significant at 0.01 level

An examination of the table 4.4.9.1 revealed that selected personal characteristics, namely, education and size of land holding had significant positive relationship with reading behaviour. Significant correlation coefficient of 0.2350 was obtained for education and reading behaviour. For size of land holding and reading behaviour, the correlation coefficient obtained was 0.2573. Which was significant at 0.01% level. However the correlation coefficient of reading behaviour with the other personal characteristics, namely, age, farming experience, annual income, cosmopolitaness, mass media exposure and attitude towards scientific agricultural practices was not significant. The diagrammatic representation of the correlation between reading behaviour and selected personal characteristics is presented in Fig(5).

#### 4.4.9.2 Correlation between agricultural information need and selected personal characteristics.

The results of the correlation analysis showing the relationship between agricultural information need and selected personal characteristics are shown in table 4.4.9.2

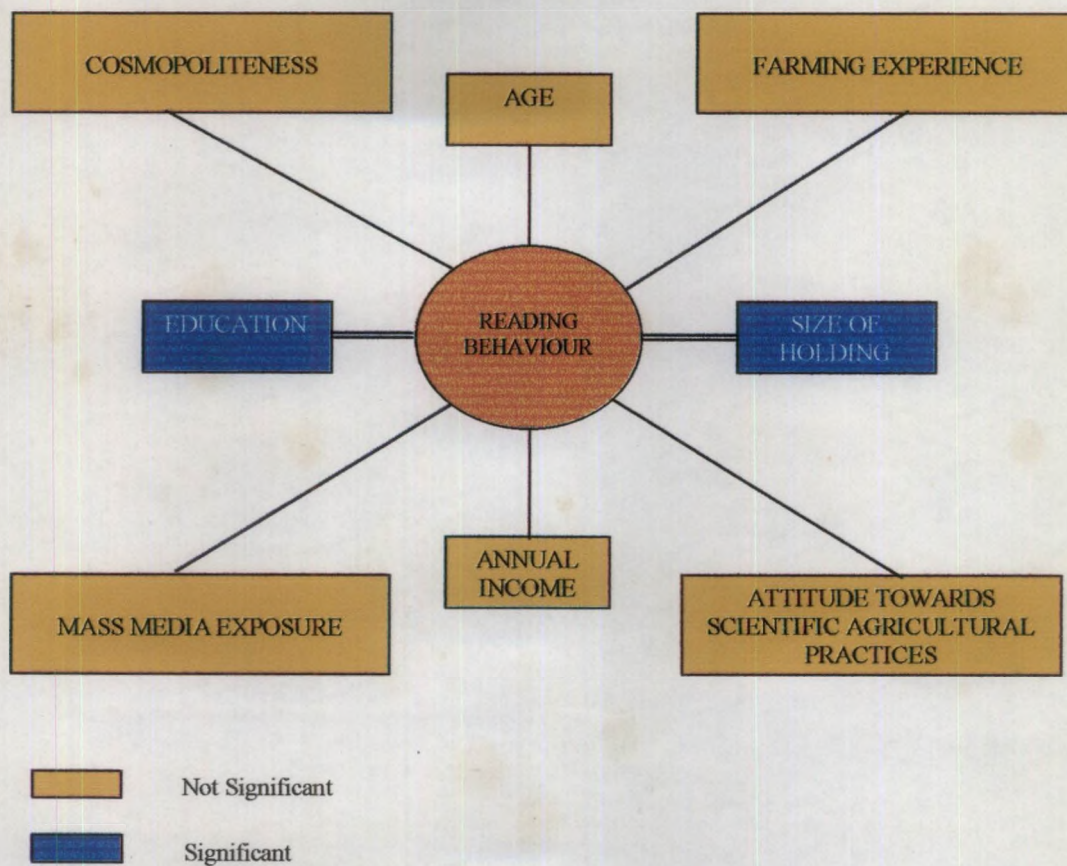
**Table. 4.4.9.2. Correlation between agricultural information need and selected personal characteristics.**

Variable	Description	Correlation Coefficient		
		Fields of agriculture	Crop	Aspect of crop production
X1	Age	-0.2294	-0.1416	0.2211*
X2	Education	0.1646	0.0163	0.2529**
X3	Size of land holding	-0.0377	0.0180	0.2505**
X4	Farming experience	-0.1747	-0.1063	-0.1183
X5	Annual income	0.0430	0.0333	0.1319
X6	Cosmopolitaness	0.0350	-0.0613	0.0438
X7	Mass media exposure	0.0707	-0.0742	0.1085
X8	Attitude towards scientific agricultural practices	0.3073**	0.0964	0.1408

\* - significant at 0.05% level

\*\* - significant at 0.01% level

The results given in Table 4.4.9.2 indicated that there was positive and significant relationship between information need on fields agriculture with attitude towards scientific agricultural practices. The correlation coefficient obtained was 0.3073 which was significant at 0.01% level. There was no



**Fig 5. Diagram showing the correlation of the selected characteristics of farmer readers with their reading behaviour.**



relationship with any of the personal characteristics and information need on crops. The personal characteristics namely age, education and size of land holding had positive and significant relationship with information need on aspects of crop production. The correlation coefficient obtained for age was 0.2211 which was significant at 0.05% level. For education and size of land holding the correlation coefficient obtained were 0.2529, 0.2505 respectively which was significant at 0.01% level. The diagrammatic representation of the correlation between agricultural information need on field of agriculture, crops and aspects of crop production with selected personal characteristics is presented in Fig(6).

**4.4.10 Relationship between the reading behaviour and education of the farmer readers.**

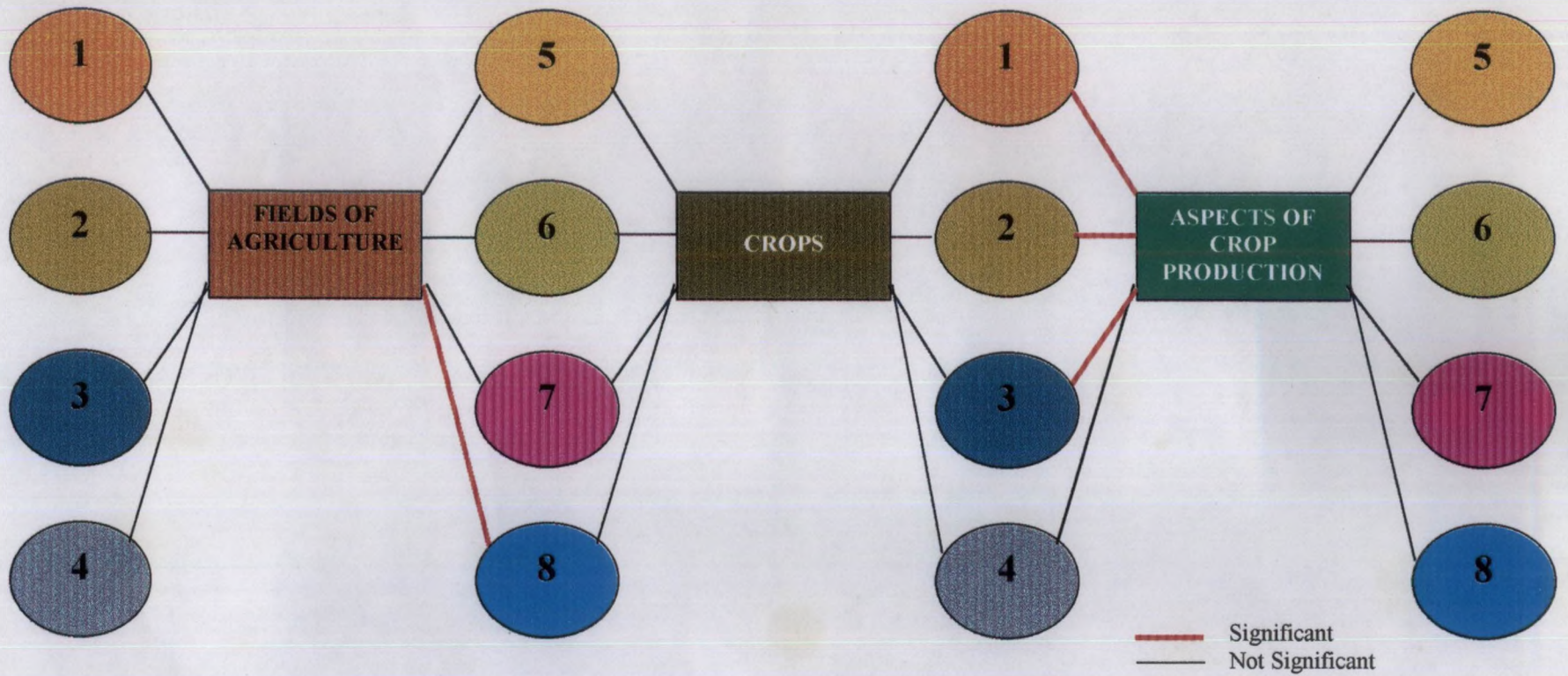
The data regarding the relationship of reading behaviour and education of the farmer readers are presented in table 4.4.10

**Table 4.4.10 Relationship of reading behaviour and education of the farmer readers.**

Education	Reading behaviour		Total
	All weeks	Once in a fortnight	
Middle	22	11	33
HighSchool	75	12	87
Total	97	23	120

The above table 4.4.10 showed that out of 97 farmer readers who were reading farm page all weeks, 75 belonged to the highschool level education.

The association between the reading behaviour and education of farmer readers was measured by the chi-square test. The calculated chi-square value was 5.896 which was significant. This shows that there was close association between reading behaviour and education of farmer readers. That is more educated the more they were reading. The other personal characteristics, namely, age and annual income had no association with reading behaviour.



1. Age, 2. Education, 3. Size of holding, 4. Annual Income, 5. Farming experience, 6. Cosmopolitanness, 7. Mass media exposure, 8. Attitude towards scientific agricultural practices.

**Fig 6. Diagram showing the correlation of the selected characteristics of farmer readers with their information need on fields of agriculture, crops and aspects of crop production.**

## **DISCUSSION**

## CHAPTER V

### DISCUSSION

The salient results of the present study are interpreted and discussed in this chapter in the following sequence.

- i) Analysis of the content of articles published in farm page.
- ii) Identification of the preference of the farmer readers towards the content.
- iii) Assessment of the agricultural information need and reading behaviour of farmer readers.
- iv) Study on the personal characteristics of farmer readers.

#### **5.1. Analysis of the content of articles published in farm page.**

##### **According to field of agriculture.**

The results in the Table 4.1.1 show the frequency of articles published according to the field of agriculture. The ranking of these fields of agriculture were in the following order: Crop production, animal husbandry, others, pisciculture, organic farming, poultry, agricultural engineering, apiculture, piggery, forestry, mushroom and sericulture. Nearly 67% of the articles were on crop production. This might be due to the reason that more contribution were made by the writers with regard to crop production. There is ample scope for other fields of agriculture also, especially, animal husbandry, pisciculture, poultry etc. The potentiality in these fields are to be exploited to a greater extent. Rajan (1982) reported that the bulk of the articles published under the Farm news service was on crop production. Similar findings were reported by Prakash *et. al.* (1990) and Nataraju and Perumal (1995). These findings were in confirmity with the present study.

##### **According to crops**

Among important crops maximum number of articles were published on vegetables (Table 4.1.2). It was followed by rubber , coconut, paddy, fruit plants, spices and banana. Vegetable cultivation is getting momentum throughout the state in recent days. The state government have taken up number of

steps to boost the yield and area under vegetable cultivation. More and more people are engaged in vegetable cultivation. This might be the reason that the articles related to vegetable cultivation stands first among others.

#### **According to aspects of crop production.**

The ranking of the different aspects of crop production according to the frequency of articles published was in the following descending order: Cultivation, seeds and sowing, plant protection, processing, manures and fertilizers, intercultural operations, marketing, storage and general aspects (Table 4.1.3). Most of the articles published under cultivation aspects were related to success stories of farmers. This might be due to the farmer reader's better response to those articles. The direct experience of success of farmers gives more confidence to the farmer reader for adopting better methods of cultivation. Such articles must cover all package of practices from selection of seeds or planting materials to harvest. The articles need not be limited to any specific aspect of crop production. This might be the reason for more number of articles getting published under cultivation aspects. This result of the study is in conformity with that reported by Gajapathy (1975).

#### **5.2 Identification of the preference of the farmer readers towards the content.**

The results bring to focus that the first preference of farmer readers among various fields of agriculture is crop production. The next followed were poultry, animal husbandry, pisciculture and piggery (Table 4.2.1.4). Khandekar and Mathur (1980) found that the maximum preference of the readers of 'Unnatkrishi' a Hindi farm magazine was cultivation of crops. Rajan (1982) and Padmanabhan (1995) also found similar finding. The present study is in conformity with these findings. This might be due to that crop production being the main field of agriculture, majority of the farmers follow cultivation as their main activity. The rest of the fields were taken as subsidiaries by them.

With regard to important crops the results showed that the maximum preference was to coconut. Others in the descending order were paddy, banana, vegetables, tapioca and rubber (Table 4.2.2.3). This might be due to the reason that coconut is the main crop of Kerala. Once the crop is established

farmers are not worried about the cultivation practices. It is the only crop which will give life long support to farming families. These also might be the reasons that the farmer readers preferred coconut than the other crops.

The maximum preference of farmer readers towards different aspects of crop production was seeds and sowing. The other aspects in the descending order were plant protection, marketing, manures and fertilizers, processing and storage (Table 4.2.3.3). Rajan (1982) found the preference of farmer subscribers as plant protection, manures and fertilizers, soil and water management, processing, storage and seeds and sowing. The finding of the present study differ from the above study. This indicate that farmers prefer to receive more information about seeds and sowing than plant protection in the present context. The recent trend of organic farming is also contributing much in this juncture. Farmers are more interested in collecting information about new high yielding varieties and its cultivation for better returns. The good seeds lead to better harvest. ('Vithugunam pathugunam'). These might be the reasons for the farmer readers to have preference on seeds and sowing.

### 5.3 Agricultural information need and reading behaviour.

With reference to information need of farmer readers, the results (Table 4.3.1) revealed that maximum number of respondents very much needed information on crop production. The next that followed was animal husbandry. This shows that these two fields of agriculture are mostly connected with day-to-day activities of the farmers. They need very much information on these aspects to improve their cultivation as well as cattle rearing. Since mixed farming is the current trend, farmers have to take up cattle farming as subsidiary occupation along with their main farming activity. From the result it was also revealed that nearly 94 percent of the respondents did not need information on piggery. Even though it is a profit-making business farmers are reluctant to follow it.

Among different crops, as much as 91 percent of the farmer readers 'very much' needed information on coconut. This might be because coconut gives regular satisfactory income to the farmers year after year. Next to coconut the respondents required information on paddy (75.83%), banana (28.33%), vegetables (22.50%) and tapioca (8.33%) in that order.

With respect to crop production aspects the farmer readers very much needed information on seeds and sowing. The farmers wanted to know about new varieties and their performances. The next aspect in which they needed information was marketing. It was quite natural that they needed information on marketing more than on the other aspects like processing, plant protection, storage and manures and fertilizers. This might be because agricultural marketing has emerged as a specialized field. Rural markets have been set up with the co-operation of government agencies and farmer organisations.

### **Reading behaviour of farmer readers**

The results of the present study revealed that nearly 81% (Table 4.3.4) of the farmer readers were reading farm page on all weeks. Since Kerala has the highest literacy rate regular reading of farm page among farmer has become a habit. The results of the study are in confirmity with Honnart (1970), Veerabhadriah and Sethu Rao (1970), Rajan (1982) and Padmanabhan (1995).

With regard to preference towards mode of presentation, majority (89.17%) of the farmer readers <sup>preferred</sup> success stories as their first choice. Most (63.33%) of the farmer readers preferred articles as their own experiene stories than other modes of presentation. Nanjappa et. al. (1998) reported their study on utility of agricultural information by the newspaper reader farmers of Bangalore district <sup>which</sup> showed that success stories was preferred most by the farmer followed by suggestion to farmers, question and answers and lastly feature articles. This is in confirmity with the present study.

The results of the table 4.3.6 show that 86.67% of the respondents preferred newspaper as their first preference amog type of publications. This is indicated by the wide circulation rate of the newspapers in Kerala state, but 11.67% of the farmers' first preference was towards magazines and the rest (1.66%) for leaflets and pamphlets.

#### 5.4 Personal characteristics

Different personal characteristics of farmer readers were studied and their relationship with reading behaviour and agricultural information need was assessed.

##### Age

It was observed that majority of the farmer readers belonged to the age group of 35-44 years (Table 4.4.1). It is inferred from this result that mostly the young people are having more reading tendency than aged people. This result is in confirmity with the findings reported by Dipali (1979), Padmanabhan (1981), Halim and Mc Carthy (1983), Ingle and Dharmadhikarj (1987), Shilaja (1990) and Boniface (1996). The maximum age of farmer readers come under 65-74 years category which contributed only 5.83% of the total respondents.

The results (Table 4.4.9.1) show that age was not significantly related with reading behaviour. This reveals that age had no influence on reading habit. Oliver (1971) found that age had not influence the reading of the articles published by the IADP personnel in a Tamil daily. Balachandran (1983) also found similar results.

With regard to agricultural information need, there is no significant relationship between age and information need on field of agriculture and crops. In the aspect of crop production there is significant relationship (Table 4.4.9.2). It was also found that there is no association between reading behaviour and age.

##### Education

The analysis shows that (Table 4.4.2) more than half (55%) of the farmer readers were undergone highschool level education. The remaining were in the order as middle school (20.83%), college (17.50%) and primary (4.17%). This indicate the high literacy status of Kerala.



The educational level of the respondents has influenced his reading of farm page in newspapers.

Oliver (1971) and Rajan (1982) found that there is no relationship between education and reading behaviour of farmer subscribers. These findings differ from the present study. It is inferred from the result that education level increases the readership of farm publications.

With reference to agricultural information need, there is no significant relationship between education and information need on field of agriculture and crops. The information need on aspect of crop production has significant relationship with education. There is close association between reading behaviour and education.

#### **Size of land holding**

It was seen that (Table 4.4.9.1) size of land holding of the farmer readers had significant relationship with their reading behaviour. This finding confirms with that of Zalaki (1973), Rajan (1982) and Oliver (1971).

It was found (Table 4.4.9.2) that there is no significant relationship between size of land holding and agricultural information need on field of agriculture and crops. But there is significant relationship with aspect of crop production.

#### **Farming experience**

Majority of the farmer readers were having experience between 16-25 years. This result of the study is in conformity with those reported by Nataraju and Perumal (1993) and Miah and Halim (1994). There is no significant relationship between farming experience and reading behaviour (Table 4.4.9.1). This shows that farming experience has no influence on reading behaviour. It was

also found that <sup>farming experience had</sup> no significant relationship with information need on field of agriculture, crop and aspects of crop production (Table 4.4.9.2).

### **Annual Income**

In the case of annual income majority of the respondents were in the income group of 1001 to 2000 rupees. Agriculture being seasonal in nature and being mostly rainfed, the respondents were unable to undertake farming throughout the year. Moreover the increasing labour charge for agricultural activities could not be afforded by the farmers. As a result they would not have got continuous income from their crops. Apart from this, natural calamity is a major problem and price fluctuations may also occur. This might be the reason for the larger proportion of the respondents falling in the low income group. The correlation analysis shows that (Table 4.4.9.1) there is no significant relationship between annual income of farmer readers and their reading behaviour. The findings of Oliver (1971) <sup>and</sup> Rajan (1982) support the present study.

### **Cosmopolitaness**

With respect to cosmopolitaness, it was observed that majority of the respondents were visiting the nearest city once in a week. They visited the city for purposes other than agriculture. They were also not members of any organisations. This might be due to the reason that the farmer readers were engaged full time in farming activities at their own place. There is no significant relationship with reading behaviour and cosmopolitaness (Table 4.4.9.1). Rajan (1982), and Balachandran (1983) reported that there will be association between cosmopolitaness and reading behaviour. The findings differ from the present study.

- **Mass media exposure**

With regard to mass media exposure, maximum respondents were reading newspaper on all days. They were also listening to radio and viewing television on all days. Since the farmer readers were information seekers, they listened to radio and viewing television on all days. There is no significant relationship between mass media exposure and reading behaviour (Table 4.4.9.1).

### **Scientific agricultural practices**

While studying the attitude towards scientific agricultural practices it was revealed that majority farmer readers were possessing high attitude towards scientific agricultural practices. The improved educational status and eagerness to adopt latest technology might be reasons for this. The correlation analysis shows that there is no significant relationship between scientific agricultural practices and reading behaviour (Table 4.4.9.1). There is significant relationship with information need on field of agriculture (Table 4.4.9.2).

## **SUMMARY**

## **CHAPTER VI**

### **SUMMARY**

The present study entitled "Agricultural information Communication through farm page of newspapers-An analysis" was taken up with the following objectives.

- i) Analysis of the content of articles published in farm page of leading newspapers in Malayalam language.
- ii) Identification of the preference of the farmer readers towards the content.
- iii) Assessment of the agricultural information need and reading behaviour of farmer readers.
- iv) Study the personal characteristics of farmer readers.

The investigation was conducted in Thiruvananthapuram district. The sample was constituted by 120 farmer readers, selected by three-stage random sampling method.

Data for this study were collected by using a check-list to achieve the first objective and by using a structured interview schedule to fulfill the second, third and fourth objectives.

In content analysis, the aspect studied was the frequency of articles published under specific content categories. For this, the farm page published in the newspapers Mathrubhumi, "Malayala

Manorama", and "Keralakaumudi" during the Calendar year 1997 were selected.

For studying the reading preference, the fields of agriculture, crops and aspects of crop husbandry were identified after consulting experts and relevant literature. The ranking according to the reader's preference was done using Paired Comparison Technique as per the procedure described by Edwards (1969).

Reading behaviour was assessed with respect to the frequency of reading farm pages with the response collected in four categories, namely, "Occasionally, once in a month, once in a fortnight, and All weeks".

Agricultural information need was assessed with respect to the frequency of information need towards fields of agriculture, crops and aspects of crop production with the response collected in three Categories, namely, "Very much needed, somewhat needed and Not needed".

The personal Characteristics studied were age, education, size of land holding, farming experience, Cosmopolitaness, exposure to massmedia, attitude towards scientific agricultural practices, and annual income.

### **6.1. Summary of findings.**

The Salient findings of the present study are summarised below.

1. Majority (66.84%) of the articles published in Farm page were related to Crop production.

2. Vegetables secured first rank (19.44%) among Crops followed by Rubber(15.48%), Coconut(9.92%), Paddy and Fruits(7.54%), Spices(6.35%), Banana and Medicinal plants(4.76%).
3. Majority (57.54%) of the articles published dealt with cultivation aspect of Crop production followed by seeds and sowing and plant protection (10.32%), processing (9.13%), Manures and Fertilizers (3.57%), Intercultural operation (3.17%), and Marketing (2.78%).
4. Crop production secured first rank according to the reading preference of the farmer readers, followed by Poultry, Animal husbandry, pisciculture and piggery in that order with respect to the different fields of agriculture.
5. Coconut secured first rank according to the reading preference of farmer readers, followed by paddy, Banana, Vegetable, Tapioca and Rubber in that order with respect to the different crops.
6. Seeds and sowing secured first rank according to the reading preference of farmer readers followed by plant protection, Marketing, Manures and Fertilizers, processing and storage with respect to different aspects of Crop production.
7. Majority (78.33%) of the farmer readers very much in need of information on Crop production followed by Animal husbandry (40.83%) with respect to information need on different fields of agriculture.
8. Majority (90.83%) of the farmer readers very much in need of information on Coconut followed by *rice* (75.83%) with respect to information need on different crops.

### **Implications of the findings of the study.**

1. Results of the study imply the need for conducting still more comprehensive movement regarding the agricultural information communication through farm page of newspapers.
2. The results of the study may help the Extension Personnel, agricultural Scientists and farm writers to identify the most suited areas of agricultural information according to needs of farmers.
3. The findings of the study may be of immense use to improve the efficiency of farm page in newspapers as well as farm publications.
4. The results of the study may be used as a guideline, which will attract competent writers in this field.
5. The findings of the study will help to improve the content, quality and utility of the farm page of newspaper. It will also bring to light the reading preference, agricultural information need and reading behaviour of farmers which will be useful for the writers and publishers of farm page.

### **Suggestions for future research.**

1. Similar studies may be conducted in other districts also, so as to cover the entire state.
2. Take up such studies in other farm publications also.
3. More crops according to locality may be selected to study the information need.
4. Studies on the utilisation pattern of agricultural information communication through farm page of newspaper by the farmer readers and its impact may be undertaken.



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## **APPENDICES**

## **APPENDIX-I**

### **CHECK - LIST FOR CONTENT ANALYSIS OF FARM PAGE**

<b>A. Fields of agriculture</b>	<b>Frequency of articles published</b>
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1. Crop production

2. Animal husbandry

3. Poultry

4. Pisciculture

5. Piggery

6. Sericulture

7. Apiculture

8. Mushroom

9. Forestry

10. Organic farming

11. Agril Engineering

12. Others.

**B. Name of Crop                      Frequency of articles published**

1. Paddy

2. Coconut

3. Rubber

4. Tapioca

5. Arecanut

6. Vegetable

7. Banana.

8. Coffee.

9. Cashew.

10. Betelvine

11. Tubers.

12. Spices

13. Fruits

14. Medicinal Plants

15. Pulses.

16. Oil seeds.

17. Fodder

18. Sugarcane.

19. Orchid, Anthurium.

20. Jasmine.

21. Other garden plants.



**C. Aspects of crop production** Frequency of articles published

1. Seeds and sowing

2. Cultivation

3. Intercultural operation

4. Manures and Fertilizers.

5. Plant Protection

6. Harvesting

7. Processing

8. Storage

9. Marketing

10. General aspects.

**APPENDIX II**  
**KERALA AGRICULTURAL UNIVERSITY**  
**DEPARTMENT OF AGRICULTURAL EXTENSION**  
**COLLEGE OF AGRICULTURE, VELLAYANI.**

**AGRICULTURAL INFORMATION COMMUNICATION THROUGH FARM**  
**PAGE OF NEWSPAPERS - AN ANALYSIS.**

**(INTERVIEW SCHEDULE)**

Serial number:

Date :

1. Name :

2. Address :

3. Name of Krishibhavan :

4. Ward :

5. Age(as on 1.7.1998) :

6. Education Status :

(Mention the appropriate category; to which you belong)

(i) can read only (ii) can read and write (iii) Primary

(iv) Middle (v) High school (vi) College

7. Size of land holdings. (in hectares)

(i) Wet land: (ii) upland: (iii) Homestead:

Total :

8. Farming Experience (in years) :

9. Annual income (in Rupees) :  
income from farming(in Rs) :

10. Subsidiary occupation : (Mention the appropriate category to  
which you belong)

(i) Labour (ii) Business (iii) Government Servant (iv) Others (specify)

Subsidiary income : (in rupees):

11. Cosmopolitaness :

(a) How often do you visit the nearest town ? (mention the appropriate category)

(i) Everyday (ii) Once in a week (iii) Once in fortnight (iv) Once a month (v) Never

(b) Why do you visit the town?

(i) For agricultural purpose (ii) For other purposes.

(c) Are you a member of any organisation in the Town? YES/NO

12. Extent of Mass media exposure: (Mention your frequency of exposure to each of the following)

Sl.No	Mass Media	Frequency of exposure						
		Everyday	Thrice a week	Twice a week	Once a week	Once a fortnight	Once a month	Never
1	Reading News paper							
2	Listening to Radio							
3	Reading farm Magazine and other agriculture literature							
4	Viewing Television							

14. Reading behaviour.

Name the newspaper that you read regularly

15. How often do you read farm page of newspaper?

- (i) Every week    (ii) once in fortnight    (iii) once in month    (iv) occasionally.

16. Among the following different mode of presentation rank your extent of preference.

- (i) Straight articles    (ii) Success stories    (iii) Question/Answer

17. Among the following type of publications, rank your extent of preference.

- (i) Newspaper    (ii) Magazines    (iii) Leaflets/pamphlets

18. Agricultural information need:

Below are given important fields of agriculture for which farmers need information. Please mention your extent of information need with respect to each field.

No.	Fields of agriculture	Most needed	Somewhat	not needed.
1.	Crop production			
2.	Animal husbandry.			
3.	Piggery.			
4.	Poultry			
5.	Pisciculture			

19. Please mention your extent of information need with respect to important crops below.

Sl. No.	name of crops	Most needed	Some what needed	not needed
(i)	Paddy			
(ii)	Coconut			
(iii)	Tapioca			
(iv)	Vegetable			
(v)	Banana			

20. Please mention your extent of information need with respect to following aspects of crop production.

Sl. No.	Aspects of crop production	Most needed	Some what needed	not needed
(i)	Seeds and Sowing			
(ii)	Fertilizer and Manuring			
(iii)	Plant protection			
(iv)	Processing			
(v)	Storage			
(vi)	Marketing			

21. The different fields of agriculture on which articles are published in the farm page of newspapers are presented below in pairs. In each pair please indicate the one field of agriculture which you prefer to read over the other.

1. Crop production/Animal husbandry

2. Crop production/poultry

3. Crop production/Pisciculture

4. Crop production/piggery

5. Animal husbandry/poultry

6. Animal husbandry/pisciculture

7. Animal husbandry/piggery

8. Poultry/pisciculture

9. Poultry/piggery

10. Pisciculture/piggery.

22. Important crops on which articles are published in the farm page of newspapers are presented below in pairs. In each pair please indicate one crop which you prefer to read over the other.

1. Paddy/Coconut

2. Paddy/Tapioca.

3. Paddy/Vegetables

4. Paddy/Banana.

5. Paddy/Rubber.

6. Coconut/Tapioca

7. Coconut/Vegetables

8. Coconut/Banana

9. Coconut/Rubber

10. Tapioca/Vegetables

11. Tapioca/Banana

12. Tapioca/Rubber

13. Vegetables/Banana

14. Vegetables/Rubber

15. Banana/Rubber.

23. The different aspects of Crop production on which articles are published in the farm page of newspapers are presented below in pairs. In each pair please indicate the one aspect of crop production which you prefer to read over the other.

1. Seeds and sowing/Fertilizer and manuring

2. Seeds and sowing/Plant protection

3. Seeds and sowing/processing

4. Seeds and sowing/storage

5. Seeds and sowing/Marketing

6. Fertilizer and Manuring/Plant protection

7. Fertilizer and Manuring/Processing

8. Fertilizer and Manuring/Plant protection

9. Fertilizer and Manuring/Marketing



10. Plant protection/Processing

11. Plant protection/Storage

12. Plant protection/Marketing.

13. Processing/Storage

14. Processing/Marketing

15. Storage/Marketing

# **AGRICULTURAL INFORMATION COMMUNICATION THROUGH FARM PAGE OF NEWSPAPERS - AN ANALYSIS**

By

**BALACHANDRA NATH N. G.**

**ABSTRACT OF THE THESIS**

submitted in partial fulfilment of the requirement  
for the degree

**MASTER OF SCIENCE IN AGRICULTURE**

Faculty of Agriculture

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1998

## **ABSTRACT**

## ABSTRACT

This study on 'agricultural information communication through farm page of newspapers - an analysis' was conducted in Thiruvananthapuram district of Kerala state. It was carried out with a view to analyse the content of articles published in farm page of leading newspapers in Malayalam language. It was also aimed at identifying the preference of farmer readers towards the content, agricultural information need and reading behaviour and studying the personal characteristics.

Three stage random sampling procedure was followed to select 120 farmer readers as respondents for this study. The respondents were selected from six Krishibhavans of Nemom block. Data were collected from the respondents using separate interview schedules. Suitable statistical techniques like frequency, percentage analysis, simple correlation, chi-square and paired comparison technique were employed in the analysis of data.

The study revealed that the maximum number of articles published were on crop production among the fields of agriculture. It was followed by animal husbandry and dairy, others, pisciculture, organic farming, poultry, agricultural engineering, apiculture, piggery, mushroom, forestry and sericulture. Among the different crops, the majority of the articles published were on vegetables followed by rubber, coconut, rice, fruits, spices, banana, medicinal plants, orchid and anthurium, coffee, other garden plants, tubers, betelvine, fodder, arecanut, tapioca, cashew, pulses, jasmine, oil seeds and sugarcane. The maximum number of articles published under aspects of crop production was on cultivation aspect. It was followed by seeds and sowing, plant protection, processing, manures and fertilizers, intercultural operation, marketing, storage, general aspect and harvesting.

The preference shown by the respondents towards different fields of agriculture was in the following descending order, namely, crop production, animal husbandry, poultry, pisciculture and piggery. For preference towards important crops, maximum respondents preferred coconut followed by rice, banana, vegetable, tapioca and rubber. Among the different aspects of crop production, maximum number of farmer readers preferred seeds and sowing. It was followed by plant protection, marketing, manures and fertilizers, processing and storage.

The study revealed that the maximum number of respondents' need information was very much on crop production among the different fields of agriculture. The maximum number of farmer readers' need information was some what on poultry and information not needed was on piggery. The information very much needed for the maximum respondents on important crops was on coconut and that on aspect of crop production was on seeds and sowing. Nearly 81% of the respondents read farm page on all weeks.

The results revealed that the age of 34.17% of the respondents belonged to 35-44 years category. About 55% of the respondents had undergone high school education. Majority of the farmer readers were having land holding between ~~0.21-0.40~~ 0.21-0.40 hectare. Forty percent of the farmer readers were having 16-25 years of farming experience. About 36% of the respondents were having annual income between 1001 - 2000 rupees. Most of the farmer readers visited the nearest city once in a week. As much as 99% of the respondents read newspapers on all days, followed by 58.33% hearing radio and 56.66% viewing television. Majority of the farmer readers showed high level attitude towards scientific agricultural practices.

The study on correlation analysis revealed that education and size of holding were having significant positive relationship with reading behaviour. Information need on field of agriculture showed significant positive relationship with scientific agricultural practices while with respect to aspect of crop production, age, education and size of land holding had significant positive relationship with information need. There was also a close association between education and reading behaviour of farmer readers.

17/11/17

