DIFFERENTIAL PREFERENCE OF WORK BY AGRICULTURAL LABOURERS AND THEIR EMPLOYMENT AND WAGE PATTERN IN THIRUVANANTHAPURAM DISTRICT

BY

SINDHU DEVI, P., B.Sc. (Ag.)

THESIS

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VELLAYANI
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Dedicated to the sacred memory of
my beloved father
Shri. P. K. PRABHAKARAN

DECLARATION

I hereby declare that this thesis entitled "Differential Preference of Work by Agricultural Labourers and Their Employment and Wage Pattern in Thiruvananthapuram District" is a bonafide 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 of any degree, diploma, associateship, fellowship or other similar title, of any other University or Society.

30/8/94

Vellayani,
30-8-1994.

SINDHU DEVI. P.

CERTIFICATE

Certified that this thesis entitled "Differential Preference of Work by Agricultural Labourers and Their Employment and Wage Pattern in Thiruvananthapuram District" is a record of research work done independently by Miss. SINDHU DEVI, P. under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to her.

Vellayani
30-8-1994

Dr. G. SOBHANA
Chairman, Advisory committee
Associate Professor,
Department of Agrl. Extension
College of Agriculture,
Vellayani, Thiruvananthapuram.

APPROVED BY

CHAIRMAN

Dr. G. SOBHANA

MEMBERS

Dr. G. T. NAIR

Dr. S. SHILAJA

Dr. P. SARASWATHY

EXTERNAL EXAMINER

Dr. B.B.A.B.U

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SINDHU DEVI. P

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INTRODUCTION

CHAPTER I

INTRODUCTION

Agriculture in Kerala is at cross roads. Production or productivity of almost all important crops probably with the sole exception of rubber is either stagnant or on the decline. Kerala is mainly an agricultural State. Like other States of India, in Kerala also, agriculture is not treated as a business rather a means of subsistence. Agriculture and allied occupations are the main stay of majority of people of Kerala. For agricultural production, our land is supported with many favourable conditions such as good rainfall, soil fertility etc. Kerala stands first in the case of human resources also Soil and climatic conditions of Kerala are suitable for the cultivation of a wide variety of crops.

But, unfortunately, it is a fact that Kerala could not achieve much progress in agricultural scene though she has plentiful resources. She will continue to be at the mercy of producers in other states if this situation persists.

Agriculture continues to be the most important and single largest sector of Kerala's economy, accounting for about 93 percent of the States income in the primary sector (Economic Review, 1991). It is the raw material base for the traditional industries like coir, cashew, oil mill etc. Most of the crops grown in Kerala state are of national importance by way of earning/saving of valuable foreign exchange by export/import substitution.

This vital sector is fast losing its dynamism and resilience it had in the past. Thus agriculture in Kerala is facing a serious crisis. We can point out several reasons for this short-fall. Failure to formulate a policy and strategy suitable for Kerala agriculture and to design and develop appropriate technology and infrastructure to meet the special requirements of small farmers, absence of scientific and systematic crop planning consistent with land capacity and ecological sustainability, lack of arrangement of production and distribution of inputs, incidence of pests and diseases, lack of marketing and processing facilities, fast decline in the size of holdings etc. are some of them. To overcome this, a new agricultural development policy has been already prepared for Kerala and various works were started in connection with this.

In addition to the above mentioned reasons, a cordial relationship between farmers on the one hand and the labourers on the other is a pre-requisite for the development of Agriculture. Agricultural labour is one of the most important factors in a production function. That is why it is said that efficient agriculture depends on the qualities of the man behind the plough, more than anything else. This shows the importance of agricultural labour even today. Agricultural labourers form a significant section of the work force in a village in whom the cultivators are dependent for getting the work done on the farm.

In Kerala, according to 1991 census, population is 290.32 lakhs. According to Labour Statistics - 1990, there are 67,91,175 total main workers in Kerala state. Out of this, agricultural labourers constitute 19,17,362. Eventhough they constitute only less than 30 percent of the total main workers, they must get much attention, as they are the backbone of an agrarian economy.

Agricultural labourers are the weakest section in the society and have suffered great hardships. They are at the lowest position in the economic and social ladder of the

society. The goal of poverty alleviation will remain a dream, unless the economic conditions of the agricultural labourers are improved. Also if we want to improve the food production, we shall have to assure these labourers the security of income and they will have to be reasonably looked after.

The demand for labour in agriculture is highly seasonal and uneven due to the seasonal nature of agricultural operations. Agricultural labourers have short periods of intensive employment, for instance, at harvest time or in sowing season. Agricultural labourer's problem is a large measure of unemployment and the degree of unemployment depends almost entirely on the character of local agriculture. To overcome these problems and to suggest ways and means for equitable distribution of employment and income, we should get an insight into the distribution of employment and income of agricultural labourers throughout the year. Here it is important to analyse the present pattern of labour employment or engagement and income along with work preference of agricultural labourers. Hence the present study was undertaken with the following specific objectives.

Objectives of the Study:

1. To analyse the employment pattern of agricultural labourers of Thiruvananthapuram district.

2. To analyse the wage pattern of agricultural labourers of Thiruvananthapuram district.

3. To study the differential preference by agricultural labourers towards various agricultural operations and to analyse the reasons for preference or non-preference.

4. To study the socio-economic and psychological profile of agricultural labourers.

5. To suggest ways and means for equitable distribution of employment and income throughout the year.

Need for the study:-

If the agricultural production in Kerala is to be increased,attention should be given to the agricultural labourers also, whose dedication and muscle power, yoked with

the muscle power of bullock is responsible to a perceptible extent for the strides that man has made in agriculture till today.

In Kerala it is revealed that the agricultural labourers face unemployment for major part of the year. More over the daily wage earnings obtained by them is very little to meet the daily expenditure. In addition to this, there is some preference by labourers to do certain particular types of works and there also unavailability of labourers will be a problem in doing the work not preferred by them.

So it is hoped that the present study reveals the present pattern of labour employment and wage pattern and the work preference by the agricultural labourers. So this study would be of immense practical use in order to suggest ways and means for equitable distribution of employment and income of agricultural labourers throughout the year.

Limitations of the study:

The present study was undertaken by a single investigator as a part of the requirement for the M.Sc. (Ag.)

programme. So the time and other resources available to the investigator was limited, which restricted the exploration of the area in a greater depth and in a more comprehensive manner. The study was also restricted to only ten panchayats of Thiruvananthapuram district and hence a broad generalisation of the findings cannot be feasible. However, atmost care was taken to make the study as objective as possible.

Presentation of the report:

The remaining chapters of this report are presented as following :

In chapter II which follows this chapter, theoretical orientation and definitions of concepts are presented.

In chapter III, the methodology followed for the study is furnished.

Chapter IV covers the results of the study in detail.

Chapter V deals with the interpretation of the findings and their discussion.

Chapter VI gives the summary of the entire study giving emphasis to its salient findings.

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

THEORETICAL ORIENTATION

CHAPTER II

THEORETICAL ORIENTATION

Theoretical orientation helps in clarification of important concepts being studied with theoretical definitions and explanations.

Here the researcher made an attempt to review relevant literature to cover the works done by other researchers in the field of investigation. But previous studies on this topic are very much limited. In such cases, reviews in related areas have been taken. The available literature was pursued and the review is presented under the following headings.

2.1. Concept of labour

2.2. Concept of Agricultural Labourer

2.3 Types of Agricultural Labourer

2.4 Employment pattern

2.5 Wage pattern

2.6 Preference of work

2.7 Personal and Socio-psychological profile of Agricultural labourers.

2.1 Concept of labour

Sharma (1984) defined labour as any work which is done with an aim to get a return or an income.

He also quoted the definition by Jevons, that labour is an effort, bodily or mental, put forth by human beings not exclusively for the sake of pleasure immediately associated therewith, but partly or wholly with a view to the attainment of some ulterior object to earn economic reward.

He again quoted the definition by Marshall, that any exertion of mind or body undergone partly or wholly with a view to some good other than the pleasure derived directly from work is called labour.

From the above definitions, it is clear that only such labour is known as labour which is productive and is done to earn some money (wage).

For this study, labour is considered as a bodily or mental effort carried by human beings in order to get economic returns ultimately.

2.2 Concept of agricultural labourer

Report of the First Agricultural Labour Enquiry Committee (1951) defined Agricultural Labourers as those people who are engaged in raising crops on payment of wages.

Report of the Second Agricultural Labour Enquiry Committee (1957) enlarged the definition of agricultural labourers to include those who are engaged in other agricultural operations like dairy farming, horticulture, raising of livestock, bees, poultry etc.

According to Garg (1959), agricultural labourers are those, who are employed on wages in agricultural operation.

Singh and Singhal (1966) defined agricultural labourer as a person who for more than half of the total number of days on which he actually worked during the year, as an agricultural labourer.

In terms of the report of the National Commission on Labour (1969), an agricultural labourer is one who is basically unskilled and unorganised and has little for his livelihood than other personal labour.

Report on the National Commission on Labour (1969) stated that the Fourth Five Year Plan documents defined an agricultural labourer as one who depends on agricultural wages for more than half his income.

Census of India (1981) defined an agricultural labourer as a person who worked in another person's land for wages in money, kind or share without any right or lease or contract on the land on which he works.

Padmanabhan (1981) defined agricultural labourer as a person doing any kind of agricultural operation for a farmer in receipt of wages in the form of either cash or kind or both.

For this study also, an agricultural labourer is defined as a person doing any kind of agricultural operation for a farmer in receipt of wages in the form of either cash or kind or both.

2.3. Types of agricultural labourers

Patel (1952) stated that agricultural labourers are classified on the basis of the way in which they receive their remuneration, ie, in cash or kind or a combination of both.

According to him, there are four main types of Agricultural Labourers as given below.

i) Bonded or Semi-free labourers - Those labourers who do not have the freedom of choosing their masters or their job were grouped under this category.

ii) Dwarf-holding labourers - Among these, the most important group is composed of tenants-at-will and share croppers who undertake cultivation under terms which are difficult to distinguish from those under which landless agricultural labourers work. Small tenants with occupancy rights and petty proprietors cultivating patches of land below five acres in size are also included in this type; the income from the cultivation of dwarf holdings may generally inadequate for their livelihood. They are compelled therefore to seek subsidiary work as agricultural labourers. Persons who seek partial agricultural labour on account of insufficiency of income from their occupations such as domestic industries, collecting forest products, tending cattle, were also included in this group.

iii) Underemployed landless labourers - This group is composed of those who have no other major occupation but agricultural labour. On account of the limited demand of agricultural labour, they are unemployed or under employed for part of the year. All those agricultural labourers who migrate from seasonal work were also included in this group.

iv) Full-time free wage labourers - Those who are employed by farmers who carry on agriculture as small capitalists seeking profits of cultivation and not as absentee-landlords living off rent.

He also quoted the classification of agricultural labourers by Nanavati and Anjaria as following

i) Field labourers - who comprised ploughmen, reapers, sowers, weeders and transplanters represent labour of seasonal character.

ii) Ordinary labourers - comprised embankment workers, well diggers and canal-cleaners; as such they too, are presumably labourers of a seasonal character.

iii) Skilled labourers - included carpenters, masons, blacksmith and leather workers; who in reality are artisans and not farm labourers.

Pant (1965) classified agricultural labourers into four types.

i) Landless labourers whose only source of income is wage labour. They might be skilled or unskilled, attached or casual workers.

ii) labourers who do not depend upon wage labour alone for earning their livelihood, but also seek work to supplement their income. To this group belong small land owners, tenants, share-croppers, part-time farmers and also village artisans.

iii) The families (women and children) of the above two types of workers constitute the third type. Here also the major object is to supplement income which is inadequate.

iv) The workers who alternated between agricultural and non-agricultural jobs.

Singh and Singhal (1966) stated that the Census of India (1951), classified agricultural workers were classified into two broad groups.

(i) Casual workers

(ii) Attached workers who had continuous employment for one month or more of time.

Rao (1976) stated that in categorising agricultural labour as casual or attached we have to deal with periods of employment ranging from a day to a lifetime, with conditions ranging all the way from full freedom to near selfdom, oral or written contracts, regular cash or kind wages or both.

Singh (1978) stated that there were four categories of workers in agriculture, called as Thorner's grouping.

i) working on daily wages.
ii) working as permanent hands.
iii) working on contract for one crop season or more.
iv) working for allotted land.

Sharma (1984) classified agricultural labourers into four categories on the basis of mode of work and payment.

i) Family labour - The labour put in by the farmer's family and for which no direct payment is made is known as family labour.

ii) Permanent labour - Permanent labour is hired generally for one year and is paid either in cash or in kind or both.

iii) Daily wages or casual labour: This type of labour fulfils the need for additional labour at the peak periods of farm operations, such as the time of transplanting paddy, planting sugarcane, harvesting crops, hoeing maize, weeding paddy etc.

iv) Contract labour - These labourers generally move in groups and do certain specific operations on contract basis.

He also classified agricultural labourers as male and female on the basis of sex.

For this study, agricultural labourers are classified as male and female based on sex.

2.4 Employment pattern

Level of employment is a crucial determinant of income and level of living of agricultural labourers. The employment pattern gives us an idea about the engagement in different farm and non-farm activities and the extent to which the workers are unemployed or under employed during the year. Following studies reveal the extent of employment and unemployment in the field of agricultural labour.

According to the report of the Second Agricultural Labour Enquiry (1957), an adult male casual agricultural labourer, on an average, remained employed on wages for about 197 days during 1956-57 as against 200 days of work in 1950-51.

Garg (1959) observed that a casual labourer gets work for wages only for about seven months and his period of unemployment accounts for three months in a year. For two months, he gets some self employment.

Sachdeva (1961) opined that an agricultural labourer is unemployed roughly for about four months in a year.

Singh and Singhal (1966) reported that in Indian agriculture, the degree of unemployment depends entirely on the character of local agriculture and on the distance from urban centres. They also revealed that adult male agricultural labourers were employed on an average for 218 days of which agricultural labour accounted for 189 days and non agricultural labour for 29 days. They were unemployed for 65 days. Women agricultural labourers could get employment for 134 days of which 120 days accounted for agricultural labour and 14 days for non-agricultural labour.

Hinge and Dhongade (1971) observed that in Maharashtra, practically in every month, there was under employment for male members. However more than 15 days was the period of unemployment for them in the months of March, April, May and June. This is the post harvest period and as such forms the off-season period for agricultural employment.

For females, during the period from January to June, there was relatively more unemployment and they find full employment from August till December, during which they are busy for operations like weeding, harvesting etc.

They also reported that total working days providing employment for adult male agricultural labourer were 210. Working days for repair of bunds, levelling and other miscellaneous farm work together were 41 days. Harrowing, sowing and weeding were the important items of work for them. Women agricultural labourers were employed for 108 days in agriculture and weeding, harvesting and grass cutting were the major items of their work.

They also reported that the extent of employment of rural population depends upon the size of holdings, cropping pattern, irrigation facilities, agro-industries opportunities,

availability of subsidiary occupations and other opportunities of gainful employment.

According to Directorate of Economics and Statistics (1972), in Kerala, one hectare of double cropped paddy field provides 300 mandays of employment per year, the same extent of land put to coconut or even tapioca cultivation provides less than 75 days of employment per year.

National Sample Survey (1972-73) reported that the incidence of unemployment is higher among females and among casual labourers.

According to Rural Labour Enquiry Report (1975), the average days of employment available to adult male agricultural labourer were 255 days and for adult female agricultural labour it was 201 days.

Chakravarthy (1976) observed that during peak agricultural season, an active farm woman spends eight to nine hours in the farm, three to four hours on taking care of cattle and three to four hours on other household work.

Mamoria (1976) reported that there is a peak demand for labour in the harvesting seasons followed by

transplanting followed by weeding. Duration of employment in an year varies from 5-7 months in dry areas and 9-10 months in irrigated areas.

According to The Kuttanad Enquiry Commission (1977), underemployment is more acute among agricultural labourers in Kuttanad. According to this, on an average, a male agricultural labourer in Kuttanad gets about 100 to 120 days of work.

Panikar (1979) reported, in Kuttanad, during virippu and punja together, a male agricultural labourer had work for about 124 days and a female agricultural labourer was employed for 132 days.

Mencher (1980) reported that eventhough wage rate is high in Kerala, number of days for which employment is available for agricultural labour is less.

Vishnukumar (1981) reported that labour absorption in cultivation in Japan, China, Taiwan etc is more than 500 mandays per hectare per year whereas that in India is 150 mandays per hectare per year.

According to Sethi (1982) significant factors influencing the pattern of labour utilization are seasonal variations in the agricultural cycle, nature and type of irrigation facilities, cropping patterns, commercialization of agriculture, type of agricultural implements, mechanisation and new variety of seeds, availability and distribution of land holdings and the size and the location of the village.

Chauhan (1983) opined that landless agricultural labourers are facing acute problem of unemployment.

Jayasankar and Narayan (1983) reported that a labourer on an average would get 258 days of employment in a year.

Gulathi (1984) reported that, in Kerala, in paddy cultivation, operations are so designed that the sexes have particular roles to perform and the scheduled caste women are excluded even from certain operations generally done by females.

She also reported that for any woman agricultural labourer, the maximum number of days she can expect to get

work in one transplanting season hardly ever exceeds 21 days. A woman agricultural labourer will get 3-5 days of work to do weeding in a season.

Patnaik (1987) observed that in Haryana, the number of days of employment that women obtained was only 39 per cent of the corresponding figure for men.

Rajan (1987) reported that women find employment only for 138 days a year but men have work for at least 208 days.

Ahlawat (1988) reported that during lean seasons, agricultural labourers earn their livelihood by engaging themselves in non-agricultural activities.

Chakraverty et al. (1989) reported that level of employment per worker varied inversely with the farm size in both irrigated and rainfed villages of Mayurbhanj District. They also reported that on the average, total working days per worker was found to be 176.78 mandays on irrigated farms and 152.40 mandays on rainfed farms.

Deshpande and Ramakrishna (1990) pointed out that human labour increases with irrigation in the range of 10-252 mandays per hectare, depending upon the crop under Krishna

Raja Sagar Project. If any new area is brought under irrigation, this range extended from 82-368 days.

Ramachandran (1990) reported that in Tamil Nadu when a plot of unirrigated land is converted to ground water irrigated land, there is a multifold increase in labour absorption. He also reported that the average number of days of employment at hired tasks for landless agricultural labourer was 140 days, of which about 96 were days spent at agricultural labour and about 44 were spent at non-agricultural tasks.

According to Sikka and Swarup (1990), in hill farming of Himachal Pradesh, males spent a greater proportion of their time on crop production (14.6 per cent) than females (9.7 per cent).

Pawar et al. (1991) reported that overall total employment for male agricultural labour in Maharashtra was 261.63 days and for female agricultural labour, it was 256.45 days. They also opined that overall unemployment was 103.37 days for males and 108.58 days for females.

Sentilnathan (1991) opined that seasonal unemployment and underemployment were the biggest problems faced by the agricultural labourers.

Sudharani and Raju (1991) conducted a study in Andhra Pradesh and pointed out that in March, August, October, November, December, January months, female labour participation was maximum in paddy based cropping system. In August, due to transplanting, in October-November, due to weeding, in December-January, due to harvesting, in March, due to harvesting of second crop, more female labour was needed.

2.5 Wage pattern

Total earnings of an agricultural labourer is a function of the wage rate and number of days of employment. Agricultural wages provide means of livelihood to a large section of rural population employed in agricultural labour. It is believed that the wages paid to agricultural labourers have not increased in proportion to rise in value productivity of agriculture and commodity prices or cost of living of the agricultural labourer. Following studies reviewed, show the overall picture of wage pattern of agricultural labourers.

According to the Report of the United Province's Labour Enquiry Committee (1946-48), wages constitute a

contract income, fixed or settled as between employers and employees where the latter sell labour in lieu of money or goods or both.

According to Second Agricultural Labour Enquiry (1956-57), about 76 per cent of the average income of agricultural households was derived from wage employment during 1950-51, 81 per cent of it was derived from agricultural wages during 1956-57.

Sachdeva (1961) opined that abundant and unorganized supply of manpower, the availability of women and children to field work in respect of some seasonal agricultural operations and their lack of bargaining strength result in bewildering range of lower wages. He also pointed out that social tradition and preconceived notions of relative inferiority of women labour brings about wide wage differentials between men and women labour. He observed that wages were high for sowing, transplanting, harvesting and weeding according to their relative importance.

Pant (1965) opined that wages in Indian Agriculture depend upon productivity and as productivity is very low, wages will also be low. According to him, wages of women and children are lower because the work done is less strenuous.

According to the report of the Second Agricultural Labour Enquiry (1957), and adult male casual agricultural labourer, on an average, remained employed on wages for about 197 days during 1956-57 as against 200 days of work in 1950-51.

Garg (1959) observed that a casual labourer gets work for wages only for about seven months and his period of unemployment accounts for three months in a year. For two months, he gets some self employment.

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Singh and Singhal (1966) reported that in Indian agriculture, the degree of unemployment depends entirely on the character of local agriculture and on the distance from urban centres. They also revealed that adult male agricultural labourers were employed on an average for 218 days of which agricultural labour accounted for 189 days and non agricultural labour for 29 days. They were unemployed for 65 days. Women agricultural labourers could get employment for 134 days of which 120 days accounted for agricultural labour and 14 days for non-agricultural labour.

agriculture has not been in proportion to increase in their cost of living.

Chambers and Harriss (1977) reported from a comparison of wage rates in 12 villages studied by the Cambridge Project, that wage rates were higher in villages where production was more continuous and more labour intensive.

Jose (1978) reported that the agricultural wage rates in Kerala have been among the highest compared to other states.

Panikar (1979) reported that in Kuttanad, wage rates of agricultural labourers are higher than that in the rest of Kerala due to the organised strength of workers which has a comparatively long tradition of trade union activity.

Agarwal (1980) reported that wages of agricultural labourers were influenced by busy agricultural seasons.

Rao (1980) observed that lack of definite guidelines, relative bargaining strength of employers and workers, poor administrative machinery and lack of effective labour force organisation are the reasons for the delay in

initiating government measures for periodic revision of the minimum wages in Andra Pradesh.

Dhaliwal and Grewal (1981) reported that after the introduction of new technology in Punjab agriculture, there has been a notable increase in money wages of agricultural labourer.

Sethi (1982) observed that the wages of an agricultural labourer in Punjab vary from Rs.5 to 20 depending upon the nature of the agricultural operations and the sex and age of the worker. Agricultural activities like transplanting, winnowing, picking of cotton and threshing of paddy are paid a lower wage and wages of females are significantly lower than that of males.

He also pointed out that eventhough a minimum wage is ensured to all the workers, there exist no checks and controls on the hours of work and the maintenance of parity in the wage rates of males and females.

Chauhan (1983) reported that wages received by the landless labourers are very poor because of their weak bargaining power.

Kumar and Sharma (1983) reported that in Haryana, real wages of agricultural labourers during the post Green Revolution period are distinctly higher than those during the pre Green Revolution period for all agricultural operations.

Gulathi (1984) conducted a study in Kerala and reported that paddy harvesting is a coveted job as it is paid for in kind. The wages are tied to the proportion of paddy harvested and this is divided among the number of labourers involved in harvesting.

According to Balaraman (1985) in Tamil Nadu on an average, the wages paid to female worker is roughly 2/3 to 3/4 of the wages paid to male labourer.

Dantawala (1986) reported that female wages as a percentage of male wages at the all India level had been less than 70 per cent of male wages in all labour enquiries.

According to Haque and Sirohi (1986), during 1950-51 to 1982-83, the compound growth rates of average daily wage for agricultural labour varied between 4.99 per cent in West Bengal to 7.96 per cent in Kerala.

Hindu (1987) reported that in terms of money, the wages of an agricultural labourer have increased by 50-65 per

cent in the last one decade, the real wage has actually declined by about 10-20 per cent because of the rise in the prices of essential commodities.

The Labour Bureau (1987) observed that lack of awareness among the workers about the rates of minimum wages was one of the important causes for ineffective implementation of minimum wages.

Parmar (1987) reported that in Sourashtra region, the average daily wage rate of male worker is as high as Rs.11.40 in developed villages whereas it is Rs.10.23 in less developed villages. He also observed that female worker is found to earn Rs.8.02 and Rs.6.90 average daily wage rate in developed and less developed villages respectively.

The extent of sex wise wage differentials is found to be lower in developed villages (42.12 per cent) as compared to less developed ones (52.91 per cent). Reason is that in developed areas, the demand for agricultural labour is relatively high leading to greater rise in wage rate of female workers and consequently compresses sex-wise differentials to some extent.

He also pointed out that lack of continuity in employment due to domestic pre-occupation, lesser number of hours of work per day in some cases, nature of operations and impact of technological changes on cultivation as a result of mechanisation etc. are the reasons for lower wage rates for female workers.

Jose (1988) reported that female wages remained at less than 80 per cent of the male wage rate in ten states and in three states rarely exceeded 65-70 per cent.

According to Acharya (1989) real wage growth trends show that wages respond to the general state of the economy including factors such as agricultural production and inflation.

Kuttykrishnan and Suchethakumari (1989) reported that in Kerala, the female wage rate was lower than that of male and large variation in wage rate was noticed among the females for the same operation. It was due to the influence of non-economic factors, they opined.

Sharma (1989) also, reported that in some areas, the female wage rate is below the minimum prescribed level.

Reddy (1991) opined that due to the unorganised nature of agricultural labourers, ineffective implementation of existing labour laws, lack of periodic monitoring and coordination between the Labour Department and the District Rural Development Agency, the enforcement of minimum wages in agricultural sector has been extremely poor and in many cases non-existent.

2.6 Preference of work

Cultivation of any crop passes through different stages starting from preparatory cultivation to post harvest operations. By participating in above agricultural activities, agricultural labourers directly or indirectly influence the course of agriculture. Among the various agricultural operations, some are exclusively carried out by men only and some others by women only. There will be some preference by labourers to do certain particular types of work and there also unavailability of labour will be a problem in doing the work not preferred by the labourers. No labourers will be obtained for certain tasks. No systematic studies have been made so far to find out the reasons for such unavailability of labour. However some of the reviews connected with this particular field are given here.

Sachdeva (1961a) reported that women are found more suitable for relatively less strenuous operations like weeding, sowing, transplanting and harvesting. He also opined that harvesting being a rush work, accounted for the largest number of mandays worked and it is in this operation that women were mostly employed. Women are employed mainly as casual workers in seasonal agricultural operations, he concluded.

Myrdal and Klein (1970) pointed out that transplantation of seedlings usually performed by women is a tough job as one has to stand in water frequently, six inches deep, moving backwards in the bending posture as they transplant the seedlings for eight hours a day.

Mies (1981), Sundar (1981) and Arputhamurthy (1990) reported that in agriculture, women do specific jobs which the male workers normally avoid. It will lead to the reservation of high prestige and high salaried jobs for men and low salaried and low prestige occupations for women.

Sethi (1982) reported that in Punjab, employment of women agricultural labourer is seasonal and selective. Her labour is utilized for specific purposes such as cotton

picking, harvesting of wheat, brick-lining of water channels and other activities which do not require any kind of skill.

Menon and Bhaskaran (1988) reported that about 28 per cent of all women agricultural labourers in Kerala are engaged in rice cultivation.

Reddy (1988) reported that in the field of agriculture, women are engaged in the application of manures, land preparation, seed grading, sowing, dibbling, planting, thinning, irrigation, fertilizer application, weeding, plant protection, harvesting, threshing, shelling, hulling winnowing, cleaning, storing grains, feeding cattle and such other operations.

Sudharani and Raju (1991) reported that the jobs traditionally done by the farm women in paddy based cropping system in order of importance are weeding, harvesting, transplanting, nursery rising and fertilizer application.

Tantray (1991) observed that women participated in all farm activities except ploughing of fields and marketing of produce. The activities such as application of pesticides and fungicides, watch and ward, and irrigation of fields were not at all conducted by the women in rabi season due to

severe winters and low acreage of crops during the rabi season in the Kashmir valley. Transplanting of seedlings, transportation and storage of produce, field preparations, threshing, winnowing and cleaning of produce and weeding and hoeing were the main activities attended by the women in the kharif season. He also pointed out that the highest level of participation by women was met in the harvesting and picking (100 per cent) and manuring of fields (98.34 per cent and 40 per cent) in both kharif and rabi seasons respectively.

Bhople and Patki (1992) reported that maximum contribution of farm women labourers was in pre-sowing, sowing, manuring, harvesting and grain storage and marketing operations.

Verma et al. (1992) reported that in Haryana, rural women were found extensively involved in threshing operations of wheat followed by storage, harvesting and picking. Women had very little involvement in application of insecticides amongst various activities.

They also noted that in case of paddy crop, first, second and third ranking position was for harvesting and picking, threshing and storage. In pulse crop, women were involved in harvesting and picking, threshing operation and storage activities.

They observed that women's involvement is comparatively less in activities of plant protection, manuring, irrigation, sowing in all crops and no involvement in preparatory tillage.

2.7 Personal and socio-psychological profile of agricultural labourers

Several studies have been conducted on agricultural labour. Most of the studies reviewed here have been about personal and socio-psychological profile of agricultural labourers.

2.7.1 Age

According to Sharma and Singh (1970), women belonging to middle age group, participated in farm operations in large proportions than others.

Dipali (1979) stated that lower age group of respondents were in high participation score range in agricultural operations than other groups.

Padmanabhan (1981) reported that 40 per cent of the men agricultural labourers and 70 per cent of women agricultural labourers belonged to the age group of 25-40

years, while 50 per cent of men agricultural labourers and 30 per cent of women agricultural labourers were in the age group of 41-50. 10 percent men agricultural labourers were above 55 years of age, there was not a single women agricultural labourer in this category.

Halim and Mc Carthy (1983) found that in Bangladesh about 49 per cent of the women labourers belonged to the age group of 30 to 39 years. The minimum and maximum age limits of the hired labourers were 10 and 49 years respectively. Only 12.67 per cent of labourers were in the age group of 40 to 49 years. 15.33 per cent were in the age group of 10 to 19 years and the remaining 23 per cent belonged to 20 to 30 years age group.

Seema (1986) reported that majority of women in her study were below 50 years of age. There was more or less equal distribution of women between 30-39 and 40-49 age group. She also reported that age had no significant relationship with their role in decision making process.

Ingle and Dharmadhikarj (1987) in their study reported that relatively higher proportion of female labourers were below 30 years of age (40 per cent).The

labourers below 40 years of age were 75.56 per cent. Above fifty, very few were engaged as farm labour.

Kanwar and Koranne (1989) reported that women working in agriculture fall in age group of 21 to 35 years of age. Small girls in age group of 10 to 20 and women above 50 years of age also work in agriculture.

Shilaja (1990) revealed that average age of large, small and marginal farm women varied between 45-47 and they differed significantly with women agricultural labourers with respect to this variable. She also reported that the agricultural labourers belong to a lower age group when compared to other three categories in both progressive and less progressive villages. Their average age was seen to be 38.

2.7.2 Sex

Sachdeva (1961) opined that poverty and low levels of living leave no alternative for rural women but to work hard for wages.

According to Haque (1968), 78.66 per cent of rural school going girls worked on the farm; 72.66 per cent of them did chaff cutting and brought fodder for cattle.

Sharma and Singh (1970) identified nine operations in which women actively participate, those were seed storage, winnowing, care of animals, harvesting, weeding, soak pit, sowing, applying manure in the field, using implements respectively. They further found that women participate in large proportions in four farm operations that is seed storage (75 per cent), winnowing (75 per cent), care of animals (74 per cent) and harvesting (71 per cent) in comparison to others.

Sithalaxmi (1975) revealed that women participated mainly in activities like storage of produce, sowing seeds and transplanting. They supervised all activities on the farm and also the arrangement of the sales of the produce. They were consulted in making decisions, with regard to all farm operations.

Dipali (1979) concluded that participation of women was high in five operations, sowing, weeding, grain storage, land preparation and cleaning seeds for sowing respectively.

Mies (1981) argued that when men lose their land, they are forced to take up wage labour, thus displacing women from many a traditional occupation.

Kebkabe (1984) in her study on role of women in agricultural production in Ethiopia reported that women constitute nearly 50 per cent of rural work force, they are directly or indirectly involved in agricultural work, and their major activities focus on food production. Women weed, transport and store maize and share responsibility with men for preparing seed beds, planting, transplanting, harvesting and marketing. As for raising vegetables women perform all the tasks except for land preparation, seed selection and scaring off birds. In coffee production, both women and men are engaged in repelling birds and in picking, storing and processing the cash crop.

Maina (1984) observed that in Kenya, women participated in all production and marketing activities for cash crops, food crops and animal husbandry.

Balaraman (1985) in his study in Tamil Nadu reported that because of their household chores, women are not able to participate fully in agricultural production and hence the time at their disposal for farm work is limited to 60 to 70 per cent of the number of days that men are employed.

Jhurani (1985) reported that in Punjab, women from the landless families worked as agricultural labourers during all the seasons and involved in various agricultural operations without much advantages to them.

Joshi and Alshi (1985) reported that female labour per hectare employed on high yielding varieties of cotton and Jowar was greater than on farms cultivating the local variety. High yielding variety cotton farms used about 157 per cent more female labour per hectare than the local variety, while in jowar, high yielding variety used 26 per cent more than the local variety. The adoption of high yielding varieties of cotton and jowar greatly increased the demand for casual female labour, they concluded.

Ray et al. (1985) reported that due to the adoption of new production technologies, the use of female labour increased enormously on all size groups of farms.

Dak et al. (1986) opined that majority of women were playing a dominating role in about half or the total of 17 agricultural production tasks considered in their study conducted at four districts in Haryana. These tasks were tending farm cattle, collecting fodder for the cattle, selling livestock products, weeding and storage of produce,

treatment of cattle, harvesting of crops and making farm yard manure. They are also playing a supportive role like threshing, sale/purchase of livestock, application of manures and fertilizers, transportation of produce, carrying inputs to the field and harvesting of crops. The agricultural tasks such as preparation of field, irrigating crops and construction or repair of field channels are arduous ones obviously most women do not have any role to play in these and hence are performed by men folk.

Patnaik and Debi (1987) observed that the participation of female labour is higher in every field ie, farm and non-farm and household than that of the males.

Rajan (1987) reported that over 1/3 of the Indian women are counted as agricultural workers and 44 per cent of all agricultural labourers are females.

Bodade et al. (1988) revealed that women are involved in all operations from the broadcasting of seeds to the sale of produce. They also observed that women were actively engaged in soil conservation.

Kaur and Punia (1988) reported that with respect to activities related to agriculture, maximum time was spent in

harvesting by women. Paddy transplanting, winnowing and weeding emerged as female dominated activities while women were equal partners in harvesting and threshing.

Menon and Bhaskaran (1988) reported that in Kerala, agricultural labour provides the largest share of 43.6 per cent of women's employment.

Mishra and Awasthi (1988) from a sample study of 90 farm families who have adopted high yielding varieties of paddy, found that the rate of female participation was higher than that of male labour in all farm size group.

Rath et al. (1988) stated that the tribal women of the Phulbani District of Orissa, work harder than men. Barring land preparation, irrigation and plant protection, they do all the farm jobs. Their involvement in agriculture is 80 per cent.

Reddy and Prasad (1988) reported that in Meghalaya, women carry out various operations from farm jobs to marketing of produce and business. They monopolise transplanting, weeding, harvesting, storage of seed and grain, harvesting vegetables and home gardening and play supportive role in land preparation, seed sowing, plant

protection and threshing.

Singh and Sharma (1988) found that women in the hills of Uttar Pradesh are employed in different activities of crops and livestock enterprises such as sowing, paddy transplanting, weeding, harvesting, threshing and winnowing, grass cutting, feeding and milking of animals.

Acharya and Panwalkar (1989) reported that in Maharashtra, women participate in larger numbers in the labour force in areas where the land distribution is skewed in favour of larger holdings and cash crops are significantly prevalent. They revealed that the female work in these areas is concentrated in the category 'casual labourers'.

Kuttykrishnan and Suchethakumari (1989) reported that in Kerala, work participation among the adult females was notable with 68.7 per cent and majority of them were agricultural labourers.

Nair (1989) in his study in Kerala, reported that women agricultural labourer had few avenues for employing themselves during the off season in other activities for income generation.

Nancharaiah (1989) observed that almost all female scheduled caste members in the working age group were participating in work as agricultural labourers while less than 40 per cent of other females in working age group were participating in work.

Arputhamurthy (1990) reported that Harijan women agricultural labourers have only 2/3 rds of employment of what the male labourers got.

Shilaja (1990) reported that more than 50 per cent of agricultural labourers in progressive and less progressive villages most often performed roles of the nature of assisting in cleaning farm residues, carrying inputs to the field, filling compost pit, manures and fertilizer application, transplanting/sowing, weeding, thinning and gap filling, harvesting, winnowing, threshing, drying and cleaning the produce, preparation and presentation of fruits and vegetables and mulching in summer months. They were performed roles like supervision of hired labour in the field, preparing and carrying food for hired labour to the field etc.

Sudharani and Raju (1991) revealed that on an average, female labour has been utilized for 92.68 days per

hectare in paddy based cropping system in Andra Pradesh. They also reported that on large farms, female labour utilization was much higher because of high yields which are achieved by the utilization of large quantities of pesticides.

Tantray (1991) reported that in Kashmir, the percentage participation of women agricultural labourers during kharif season was as following. Transplanting (95 per cent), weeding and hoeing (58.34 per cent), seed sowing (25 per cent) irrigation (6.67 per cent) and fertilizer application (3.34 per cent). He also reported that women agricultural labourers spent 190.8 mandays (kharif) and 75.3 mandays (rabi) on different farm activities.

2.7.3 Caste

Myrdal and Klein (1970) opined that scheduled caste women are kept out of certain operations that other women take up and their main job is transplanting.

Sharma and Singh (1970) and Bhople and Patki (1992) reported that role performance of agricultural labourers coming from poor and backward castes was found to be higher than that of others.

Dipali (1979) stated that there was significant difference in participation between two caste groups - scheduled and non-scheduled - the scheduled caste group respondents have participated more in agricultural activities.

Panikar (1979), Chauhan (1983) and Nancharaiah (1989) reported that agricultural labour is most drawn from the socially and economically backward sections of the rural community.

Padmanabhan (1981) reported that majority of agricultural labourers belonged to Kuravar caste, (ie, 60 per cent male and 55 per cent female) and no significant relationship was found between caste and efficiency of labourers.

Nakamura (1982) and Rao (1984) reported that when castes lose the tools and techniques of their traditional occupations, they tend to become agricultural labourers.

Sethi (1982), Singh (1985) and Nancharaiah (1989) reported that because of the illiteracy, unawareness of the laws to safeguard their working conditions etc., mostly the scheduled caste agricultural labourers are unorganised and are at lowest economic and social ladder of the society.

Gulathi (1984) reported that in Kerala, usually women of higher castes do threshing of paddy.

Dak et al. (1987) revealed that the contribution of higher caste women in agriculture was significantly lower than that of lower caste women.

Ingle and Dharmadhikarj (1987) observed that majority of the female farm labourers were from scheduled caste.

Kaur and Sharma (1988) in their study observed that in Haryana, women of all castes were working in agriculture, the highest being in lower castes (83.6 per cent) followed by scheduled castes (81.6 per cent), middle class (81 per cent) and upper castes (58.6 per cent).

Ramachandran (1990) observed that in Tamil Nadu, scheduled castes are concentrated among the hard-labouring sections of the population, particularly among agricultural labourers.

Shilaja (1990) reported that in progressive and less progressive villages, majority of large, small and marginal farm women belonged to backward community and a

large number of agricultural labourers were from scheduled caste.

2.7.4 Religion

Panikar (1979) in his study conducted in Kuttanad reported that agricultural labourers consists primarily of low caste Hindus like Ezhava and Harijans and poor Christians of Kerala.

2.7.5 Family type

Sharma and Singh (1970) reported that the type of the family is not a discriminating factor in participation of women in farm operations.

2.7.6 Family size

Dipali (1979) revealed that small family were in high participation score in comparison to big families in agricultural activities.

Halim and Mc Carthy (1983) found that the average family size of the women labourers in Bangladesh was 5.06 which is below the national average, 52 per cent of families had 5 to 7 members and 39 per cent had 1 to 4 members. The rest of the families had 8 to 10 members.

Ingle and Dharmadhikarj (1987) reported that 90 per cent of agricultural women labourers had family members upto 5 only out of which 40 per cent with 1 to 3 family members and 50 per cent with 4 to 5 family members.

Ramachandran (1990) in Tamil Nadu, reported that the average size of household among agricultural labour households was 4.6 persons and landless agricultural labourers 4.48 persons.

Shilaja (1990) revealed no significant difference between four categories of farm women, viz. large farm women, marginal farm women, small farm women and women agricultural labourers of two categories of villages - progressive and less progressive, with respect to family size.

2.7.7 Family income

The earnings of an agricultural labourer is a function of both the wage rates and the days of employment.

According to Ratnawat (1975), replacement of hired agricultural labour by the cultivator and his family is the main cause of the fall in the income of the agricultural labourers.

Dipali (1979) in her study on farm women reported that low income group had high participation score.

According to Alexander (1980), in no State other than Punjab will the agricultural labourer be able to have an earning above the poverty line at the prescribed minimum wage.

Prasad et al. (1989) opined that for promoting income generating activities, diversification of agriculture and agrobased industries, collective work and co-operative marketing were needed.

Giriappa (1990) reported that low average income and high expenditure levels are common features among labourers engaged in fishing, cultivation of vegetables and in plantations.

Pawar et al (1991) reported that in tribal areas, contribution of wage earnings to the total family income was the highest (80.43 per cent) in case of landless labour families.

Swaminathan (1992) opined that unless about 200 million additional jobs are found in the off-farm sectors in

the rural areas in the next 12 years, the earning capacity of rural families will be low.

2.7.8 Indebtedness

Pant (1965) reported that indebtedness will reduce the bargaining power and increases the labour supply from the family of the indebted workers.

According to Singh and Singhal (1966) whenever the land owners are giving small house sites for agricultural labourers, the rents charged are very heavy which increases the agricultural labourers' indebtedness and reduces their standard of living.

Fourth Rural Labour Enquiry (1975) revealed that the percentage of agricultural labour household in debt to total agricultural labour increased from 61 in 1964-65 to 66 per cent in 1974-75. They also reported that the average debt per indebted agricultural labour household was Rs. 584 in 1974-75 as against Rs.244 in 1964-65 an increase of 135 per cent. Also reported that in Tamil Nadu, the incidence of indebtedness among agricultural labour household without land was 72 per cent, for agricultural labour household with land 83 per cent and for all agricultural labour household 76 per cent.

According to Mathur (1975) tribal indebtedness is both a cause and effect of poverty and is also related to bonded labour and alienation of tribal land.

Puri (1978) reported that indebtedness is one of the major problems of tribal area.

Haque and Sirohi (1986) opined that under adverse economic conditions, many of the agricultural labourers bound themselves to work for the landloards and the money lenders at relatively low wage rates and for longer periods, which results in their indebtedness.

Gough (1987) described that farm servants of Thanjavur were bonded by debt to landlords and since the system of bonded labour still had legal sanction, farm servants could free themselves and gain some degree of mobility only by repaying the debt.

Pawar et al. (1991) reported that the expenditure exceeds the income in all labour families forcing them to borrow money from the money lenders.

2.7.9 Experience

Chambers English Dictionary (1976) explained experience as practical acquaintance with any matter gained by trial or wisdom.

Padmanabhan (1981) observed that among male agricultural labourers, 35 per cent of respondents were with 10 to 20 years experience and 35 per cent with 21 to 30 years experience. 44.7 per cent of efficient male agricultural labourers were with 10 to 20 years experience whereas 54.5 per cent of inefficient male agricultural labourers were with 31 to 40 years experience.

In the case of females 55 per cent of the respondents were with 10 to 20 years experience. Here 67 per cent of efficient women labourers and 45.5 per cent of inefficient women labourers were with 10 to 20 years experience.

He observed a significant negative relationship between experience and efficiency of agricultural labourers.

Shilaja (1990) in her study found no significant difference between four categories of farm women - large farm women, marginal farm women, small farm women and women agricultural labourers - of both progressive and less progressive villages, with respect to their experience.

2.7.10 Socio-economic status

Singh and Singhal (1966), Sharma (1984) and Narappanavar (1989) reported that low standard of living of agricultural labourers is due to low productivity, under employment in agriculture, lack of opportunities in non-farm sector and low wage rates.

Devi and Reddy (1984) in their study revealed that farm women of low economic category were found to participate more in farm operations whereas farm women of high and medium economic categories were found to participate more in allied farm operations.

According to Ray et al (1985) relatively low employment and wage rate of female labourers are indicative of the inferior status of female labourers in India.

Haque and Sirohi (1986) opined that family size and number of working members also determine the standard of living.

Lalitha and Sharada (1988) reported that those families not entirely dependent on wages have a higher standard of living.

Pawar et al. (1991) reported that socio-economic status of tribal population in rural India has witnessed change at a snails' pace since independence.

2.7.10.1 Education

Mosher (1965) indicated education of farm people as an accelerator for agricultural development.

Chaudhari (1968) stated that level of agricultural productivity was significantly related to the level of education in Indian agriculture.

Chaudhari (1969) revealed from an Indian study that the agricultural productivity was related to the education of farm workers.

Sharma and Singh (1970) reported that women having no formal education participated in farm operations in large proportions than others.

Besen (1971) during a study of productivity in the United States indicated a strong evidence for considering education as a determinant of productivity.

Fourth Rural Labour Enquiry (1975) revealed that the literacy among agricultural labourers was 20 per cent.

Ratiram, (1976) found that schooling had mainly an indirect impact on productivity, hence was regarded as a quasifactor of production.

Dipali (1979) revealed that illiterate group were in high participation score range in contrast to other group. She also observed that low family education profile group of respondents were in high participation score range.

Singh and Chander (1983) reported that education was found to exercise non-significant effect on women's participation.

Seema (1986) in her study revealed that family educational status had no significant relation with role performance of farm women in dicision making process.

Dak et al. (1987) stated a significant influence of higher family education on all agricultural activities except tending cattle which was performed both by more educated and less educated alike.

Ingle and Dharmadhikarj (1987) found that female labour may be in rural area or private farms or on government farms as a whole were illiterate.

Kaur and Sharma (1988) observed that 83 per cent of the women workers were illiterate. The number decreased to 11.6 per cent as literacy increased to matriculation level and above.

Kanwar and Koranne (1989) reported that 45.35 per cent of working females are uneducated and 34.64 per cent took education only upto primary school level.

Ramachandran (1990) reported that his study in Tamil Nadu showed that literacy among agricultural labourers was considerably lower (36 per cent) than for other classes; that among agricultural labourers, the scheduled caste agricultural labourers had an even lower level of literacy (31 per cent).

Shilaja (1990) reported that with respect to education, large and small farm women in both progressive and less progressive villages differ significantly with marginal farm women and women agricultural labourers, when there exists no significant difference between these two categories of women. Large and small farm women had middle school level of education, while marginal farm women differed significantly with women agricultural labourers; marginal

farm women were having primary school level of education and agricultural labourers were able to read only.

Pawar et al. (1991) reported that illiteracy among tribal farm families helped their own exploitation due to lack of knowledge about money transactions and new developments in science and technology.

Reddy (1991) opined that removal of poverty is an essential requirement to ensure the better enrolment and retention of children of agricultural labour households in schools.

2.7.10.2 Occuptaion

Data from the study conducted in Tamil Nadu by Ramachandran (1990) showed that the main occupation of 42 per cent of fathers of the head of each agricultural labour household was agricultural labour.

2.7.10.3 Land holding

Sawer (1973) observed that women's participation in decision making was negatively associated with farm size.

Dipali (1979) in her findings indicated that the participation of rural women in agricultural operations was

depended upon the size of holding the family possessed. Majority of respondents (55.3 per cent) were in small land holding group with high participation score range than the respondents of large land holding group (44.69 per cent) with low participation score range. Majority of the respondents (24 per cent) were landless agricultural labourers with high participation score range than small and large land holding groups respectively.

According to Panikar (1979) vast majority of agricultural labour households are landless except for the small area around their huts ranging from 2 to 10 cents.

According to Census report (1981), the number of total landless agricultural labourers in India is 64.4 million and the female component is 28.5 million.

Chauhan (1983) reported that 75 per cent of the agricultural labour households owned less than 1.5 acres of land each. Corresponding proportions for scheduled caste and scheduled tribe agricultural labourers were 81 per cent and 63 per cent respectively.

Sajoguo (1983) based on several cases in West Java stated that in the field of agriculture the better off households control greater areas of land, it is these households that obtain the greater income. The contribution made by agriculture especially rice cultivation to the income of the poorest household is extremely small, there is a tendency of greatest involvement of women in non-agricultural employment.

Dak et al. (1987) revealed that there were significant effects of land holding on womens' contribution in all the agricultural activities except storage of produce, the task which is performed by large as well as small farmers alike. They also concluded that women with differential land status, differ also in respect of their participation in both male as well as female dominated activities.

Nancharaiah (1989) reported that out of 248 total households, 93 were landless households, majority being the scheduled caste agricultural labourers in Andra Pradesh.

Ramachandran (1990) reported that in Tamil Nadu, the land holdings among agricultural labourers are almost always small and unproductive plots of unirrigated land.

Shilaja (1990) reported that agricultural labourers possessed as average farm size of 0.23 acres.

2.7.10.4 Annual income

The report of the Fourth Rural Labour Enquiry (1975) observed that the average household income of an agricultural labourer was Rs.447 per annum in 1950 which declined to Rs.437 in 1956-57.

Panikar (1979) reported that in Kainakari of Kuttanad, during 1976-77, the per capita income of the selected households came to Rs.445. He also noticed that the total income from agricultural and non-agricultural work during the two paddy seasons taken together during this period works out to a little over Rs.1107 per male and Rs. 939 per female labourer.

Ramachandran (1990) reported that in Tamil Nadu, among landless agricultural labourers, just over half the aggregate income was from labour at agricultural tasks and earnings from agricultural labour formed a significantly higher proportion of the total earnings of households. He also noticed that a male landless agricultural labourer, on average earned Rs.652 per annum from agricultural tasks alone and a woman landless agricultural labourer earned Rs. 241.

Landless agricultural labour household earned an average of only Rs.1019 from agricultural labour per year.

Shilaja (1990) reported that large farm women had an average annual income of Rs.43,000/- and there was significant differences in income levels between large farm women and other three categories. However, there exist no significant differences, among small and marginal farm women and agricultural labourers.

2.7.10.5 Material possession

Alphonsa (1978) opined that possession of implements is a major indicator of agricultural wealth of the scheduled castes.

Ramachandran (1990) from his study in Tamil Nadu, reported that the combined assets of 257 agricultural labour households were Rs. 5.64 lakhs.

2.7.10.6 Socio-political participation

Sharma and Singh (1970) reported that social participation is not a discriminating factor in participation of women in farm operations.

Renukaradhya (1983) found that majority of the trained farmers were in high social participation category with higher score of economic performance.

Gowda (1988) observed that variation in ragi productivity of small and marginal farmers was influenced by independent variable like social participation. He also observed social participation contributed significantly for the variation in groundnut productivity in case of marginal farmers.

Mulay (1988) in her investigation with two groups of women (experimental and control) revealed that experimental group tended to be more progressive, secular cosmopolitan and with higher participation in social activities.

Shilaja (1990) revealed that there was no significant difference between large and small farm women with regard to social participation. Large farm women differed significantly with marginal farm women and women agricultural labourers on this variable. There was no significant difference between small and marginal farm women but they differed significantly with women agricultural labourers. The social participation score of women agricultural labourers were zero.

2.7.10.7 House

Singh an Singhal (1966) reported that the housing conditions of agricultural labourers are deplorable. Their houses are the worst in the villages. They do not have their own land to construct their own houses and always remain at the mercy of the land owners for small house-sites.

Menon (1972) reported that in Kerala, most of the low class people were agricultural labourers and they lived in small huts by the side of their high caste masters.

2.7.11 Cosmopoliteness

Sumathy (1987) in her study on coffee growers reported that majority of the respondents were highly cosmopolites.

Mulay (1988) indicated that farm women from villages where technology is being transferred are on the forward march.

Shilaja (1990) reported that there was no significant difference between large and small farm women with respect to their cosmopoliteness and they differed significantly with marginal farm women and women agricultural

labourers. So also marginal farm women differed significantly with agricultural labourers.

2.7.12 Mass media participation

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

Lalitha (1985) revealed that there was no significant difference in knowledge level of high and low mass media participation group.

Bhagat and Mathur (1989) in their study on Mass media and farm women indicated that about 25 per cent of women had low mass media exposure whereas 26 per cent had high mass media exposure and rest were categorised as having medium mass media exposure.

They also reported that women's programmes and rural programmes which are educational in nature were preferred by farm women. They opined that radio provide education to them for improving their living, increasing their knowledge and providing information on home improvement.

Shilaja (1990) reported that there was no significant difference between large and small farm women with respect to their mass media participation and they differed significantly with marginal farm women and women agricultural labourers. So also marginal farm women differed significantly with agricultural labourers.

2.7.13 Level of aspiration

Wilkening and Bharadwaj (1968) stated that involvement of husbands and wives in farm, home and family decision is influenced by their task involvement and aspirations.

Padmanabhan (1981) observed that majority of agricultural labourers had very low level of aspiration (present). Almost all respondents had score below 4 in his study which indicated that they considered themselves to be in very low levels of standard of living. He observed a significant positive relationship between level of aspiration (present) and efficiency of male agricultural labourers whereas no relationship in the case of female labourers.

He also pointed out that in the case of level of aspiration (future) also, the observation was same as above.

Seema (1986) in her study revealed that more than 50 per cent of the respondents were found to have higher level of aspiration but there was no significant relationship between level of aspiration and role of farm women in decision making process.

Shilaja (1990) reported that marginal farm women had a high level of aspiration and were superior to large and small farm women and were on par with agricultural labourers. There was no significant difference between large and small farm women and small farm women were on par with agricultural labourers; while agricultural labourers were superior to large farm women with respect to level of aspiration.

2.7.14 Achievement motivation

Mc Clelland (1961) stated that achievement motivation is the degree to do well not so much for the sake of social recognition or prestige but to attain an inner feelings of personal accomplishment.

Rogers and Svenning (1969) quoting researches conducted in six villages of Columbia and eight villages of Uttar Pradesh had concluded that farm production is positively related to achievement motivation of the farmers.

They also indicated that achievement motivation was positively related, and that a positive relationship existed between farm size and achievement motivation.

Devi and Reddy (1984) reported that achievement motivation has no relation with role expectation and role performance of rural women in farm activities.

Seema (1986) in her study opined that achievement motivation had no relation with role expectation and role performance and extent of participation in implementing the decisions.

Shilaja (1990) reported that large farm women had high level of achievement motivation and differed significantly with other three groups - large, small and marginal form women and women agricultural labourers. There was no significant difference between small and marginal farm women and they differed significantly with agricultural labourers.

2.7.15 . Attitude towards scientific agriculture

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) observed a significant positive relationship between attitude of agricultural labourers towards scientific agriculture and their efficiency.

Singh and Singh (1982) in their investigation on 'Rational and adoption behaviour of farming couples' revealed that values and attitudes were found significantly related with rational 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 community 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) opined that attitude 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.

2.7.16 Attitude towards agricultural labour

Homans (1941) and Smith (1955) reported that the only factor that was found to be continuously related with increased output in the Western Electric Research was the job attitude of the employees.

Finley et al. (1955) stated that efficiency of workers would be more if positive attitudes towards work were encouraged.

Mehta (1955) stated that no other factor of industrial production played so dominant a role in the determination of industrial productivity as the attitude of industrial workers towards their job.

Liket (1956) and Ganguly (1958) had shown that increase in productivity could be obtained through favourable shifts in the job attitude of employees.

Herzberg et al. (1957) established quantitative relationship between productivity and job attitude in 14 out of 26 studies conducted by them. In 9 studies, there was no relationship and in 3 studies workers with positive job attitudes actually showed poor production records than those with negative attitudes.

Porter et al. (1974) reported that for effective performance, favourable attitude is a pre-requisite.

Mongia (1976) stated that high productivity could be achieved if the attitude of the workers towards their work is maintained at favourable level.

Padmanabhan (1981) reported that in his study, majority of agricultural labourers had favourable attitude towards their profession. He found a significant positive relationship between attitude towards job and efficiency of agricultural labourers.

2.7.17 Participation in decision making

Lionberger (1960), Rogers and Shoemaker (1971) called the attention of the wives' participation in decisions leading to the acceptance of agricultural innovations as is

lacking eventhough adoption process continues to provide a major theoretical basis for the study of farm decision making.

Badiger (1979) concluded that the participation of women in decision making was high in case of animal management and storage of grain, but it was less in the case of selection and use of fertilizers.

Padmanabhan (1981) observed that in his study, 56.7 per cent of male respondents were involved in decision making with farmers. Corresponding figure in the case of female agricultural labourer was 8.3 per cent. He also pointed out that efficient male agricultural labourers were more involved in decision making. He observed a significant positive relationship between participation in decision making and efficiency of agricultural labourers.

Achanta (1982) revealed that women were consulted with regard to the adoption of improved seeds, marketing of food grains and adoption of improved agricultural implements.

Hegade (1982) stated that women's participation in economic decision making was a vital means by which their economic dependency and social inequality could be removed.

Their participation in decision making resulted in increasing the employment opportunity for women, increasing the produce and income level of community, reducing the exploitative elements in the economic system, co-operativising the production, marketing and distribution.

Pradhan (1983) pointed out that in Nepal in most communities the women have an important role in agricultural decision making. In agriculture, two types of farm management decisions are recognised on labour allocation and on agricultural production. On labour allocation men take more decisions (46.2 per cent by males verses 39.4 per cent by females). In agricultural decisions women make an overwhelming majority of the decisions, particularly those concerning the use of their own or improved seeds (20.7 per cent by men and 60 per cent by women) and the seed selection process, 81.2 per cent of the decisions are made by women. These decisions are crucial to the production yield in agriculture.

Singh and Chander (1983) stated that while working together in the fields, men and women usually discussed matters with each other and the final decisions were taken by men in consultation with women only.

Maina (1984) observed that in Kenya, women are involved in making decisions related to agricultural production although the majority have little or no say in the way in which cash occurred is distributed to meet the family needs.

Mamba (1984) described that Malavian women play a dual role as home makers as well as farmers. No single operation is considered specific to males, women taken part in all activities from decision making to marketing. Women make decisions (on land use, crops grown, inputs utilized and resource spent) alone or with their husbands.

Sisodia (1985) observed that in Haryana more than 30 per cent of the farm house wives were consulted regarding the choice of crops to be grown, variety of seeds, fertilizer application, number of irrigations, quantity of grains to be marketed and place of marketing. The degree of female participation about new ideas of agriculture is much more in the case of scheduled caste/scheduled tribes and backward classes and declines with higher position in the social hierarchy.

Dak et al. (1987) opined that the role of women in decision making was mainly of supportive nature while the monopolising or dominating role in most case is performed by men. The supportive role of women in the majority of cases was evident in respect of choice and area of crops, investment in irrigation, purchase of land and giving and obtaining credit. The selection and use of inputs particularly manures and fertilizers and plant protection measures have emerged as important areas where women have almost no role to play and where only women have a say.

Bodade et al. (1988) opined that women play a prominent role in the decision making process of the tribal society.

Menon and Bhaskaran (1988) reported that in Kerala more than 90 per cent of farm women took part in decisions relating to storage and marketing of produce and management and care of animals. But involvement is less than 90 per cent in decisions relating to the choice of crops and varieties, weeding, manuring, plant protection, time of harvesting and type of implements to be used.

Shilaja (1990) reported that there was no significant difference between large and small farm women

with respect to participation in decision making, but large farm women differed significantly with marginal farm women and women agricultural labourers. On the other hand, small farm women and marginal farm women were on par with each other with respect to this variable. Marginal farm women were having significantly higher score than women agricultural labourers.

She also reported that majority of women agricultural labourers never participated in taking decisions in any of the areas in crop production, care and management of animals etc. in both progressive and less progressive villages.

2.7.18 Knowledge in farming

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

Sithalaxmi (1975) in her report states that research done at Avinashalingam Home Science College in four villages of Coimbatore district with 195 farm families revealed that even though women supervise all activities on the farm, the knowledge of these women in scientific method

of cultivation and profitable utilization of the produce were only limited.

Sandhu and Sharma (1976) in their study with 100 farm women found that the existing level of knowledge about selected improved agricultural and home science practices was medium in 50 per cent farm women while it was low in 37 per cent and high in only 13 per cent. 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.

Dipali (1979) revealed that there was positive relationship between level of knowledge of rural women in farm practices and their degree of participation in agricultural operations.

Padmanabhan (1981) observed a significant positive relationship between the knowledge of scientific agriculture and efficiency of male agricultural labourers where as no relationship in the case of female agricultural labourers.

Saradamoni (1983) reported that women in land owning households had remarkable knowledge about paddy and

other crops. She also reported that most of them could without hesitation answer questions regarding different varieties of seeds, pest control and labour requirements.

Viju (1985) reported that majority of the Kanikkars had medium level of knowledge about improved agricultural practices.

Mulay (1988) in her investigation with two groups of women (experimental and control) revealed that the knowledge regarding the farm practices was higher in case of experimental group.

Govind and Subramanyam (1989) in their study revealed that lack of knowledge emerged as a problem against active participation of farm women in agriculture, livestock and other home based operations.

2.7.19 Knowledge about improved farm implements

Sandhu and Sharma (1976) reported that in their study, the preference given to the information needs about improved agricultural tools by farm women was the least one.

Bhople and Patki (1992) suggested that in order to minimise the physical exertion involved in carrying farm operations by women labourers, there is a need to develop and introduce appropriate tools, appliances and techniques.

METHODOLOGY

CHAPTER III

METHODOLOGY

This chapter presents a detailed description of the methods and procedures followed in conducting the study, consisting of locale of the study, sampling procedure, measurement techniques used, data collection procedure, categorisation of respondents and statistical tests used in the analysis of data.

3.1 LOCALE OF THE STUDY

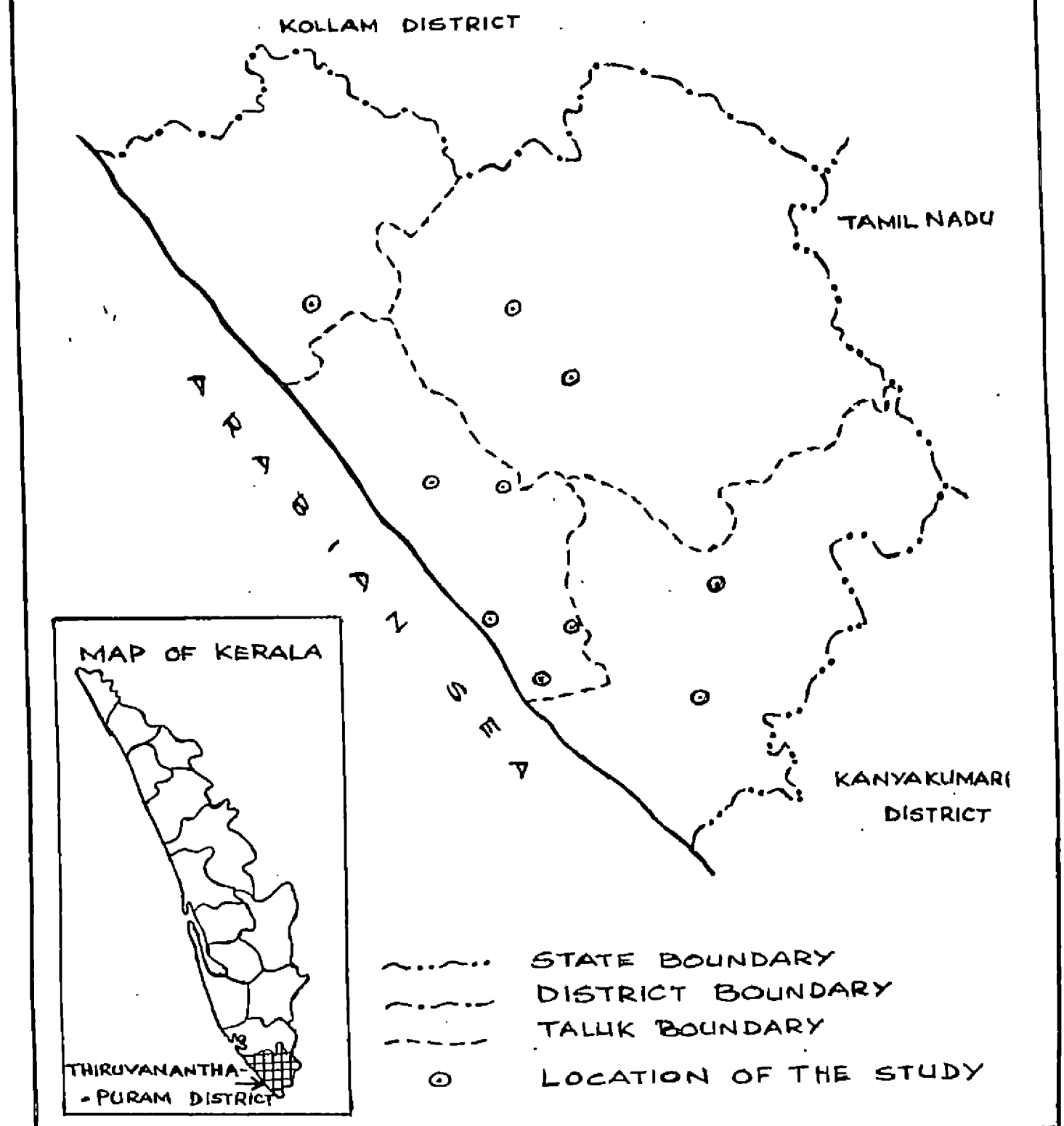
The study was conducted in Thiruvananthapuram district of Kerala State. The study forms a part of a major research investigation to generate comprehensive information on the various aspects of agricultural labourers in Thiruvananthapuram district. Moreover Thiruvananthapuram district was purposively selected because the data was to be collected at periodical intervals throughout one year.

3.2 SAMPLING PROCEDURE

3.2.1 Selection of Panchayats

There are 89 panchayats in Thiruvananthapuram district, out of which 10 panchayats were randomly selected for the study.

FIG I. MAP SHOWING THE LOCATION OF THE STUDY



3.2.2 Selection of Respondents

Panchayat wise list of agricultural labourers were collected from Kerala Agricultural workers Welfare fund Board and District Labour Office, Thiruvananthapuram. From the list of agricultural labourers in each of the 10 panchayats selected, 12 agricultural labourers were selected radomly, thus forming a sample size of '120'. These agricultural labourers were selected keeping in view that the selected sample has equal distribution in both the sex categories.

One third of the sample was kept as sub-sample for studying the employment and wage pattern. For that, out of 10 selected panchayats, four were selected at random from which a sample of 10 respondents each was drawn, so as to have a sub sample of '40'.

3.3 MEASUREMENT TECHNIQUES USED

3.3.1 Employment and wage pattern of Agricultural labourers

Hinge and Dhongade (1971) for studying the extent of employment and unemployment, maintained daily work diaries of all the selected persons for a period of entire year. The data was collected with the help of a special schedule

prepared for the purpose. To ensure accuracy of data, frequent regular visits were paid during the period of the enquiry. For calculating the working days, eight hours of work was considered as 'one' day.

In this study also, daily work diaries of sub sample respondents were maintained by keeping a register with the respondents for a period of one year. This data was collected with the help of a special schedule prepared for the purpose and verifying it at fortnightly intervals.

Then the month-wise employment pattern was tabled in order to know the peak periods of employment and unemployment, total number of days engaged by male and female agricultural labourers in agricultural labour and other works. Along with this, wage pattern was also tabled so as to analyse the income earned by male and female agricultural labourers from agricultural labour and other works.

3.3.2 Preference of work by Agricultural labourers

Different agricultural operations generally done by male and female agricultural labourers with respect to the cultivation of major crops of Kerala such as paddy, coconut, vegetables, tapioca and banana were listed seperately and the

respondents were asked to rank these operations based on their preference in a continuum ranging from 'most preferred' to 'least preferred'. They were also asked to give the reasons for preference or non-preference.

3.3.3 Socio-psychological profile analysis of agricultural labourers

3.3.3.1 Age

According to Wolman (1973), age means the period of time from birth to any given time in life or chronological 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 and a score of one was assigned to each completed year.

3.3.3.2 Sex

According to Singh and Verma (1987), sex determines the status and role that a person is supposed to perform in society and thereby the experiences that he/she gets from his/her interaction with physical and socio-cultural environment.

Sex refers to whether the respondent is male or female and a score of one was assigned to each male respondent and a score of two was assigned to each female respondent in order to classify them according to sex.

3.3.3.3 Caste

Caste refers to the respective caste to which the respondent belongs to.

The respondents were asked to mention their caste and was measured with the help of an arbitrary scoring procedure.

Category	Score
Forward	4
backward	3
Scheduled caste	2
Scheduled tribe	1

3.3.3.4 Religion

Religion refers to the respective religion to which the respondent belongs to. The respondents were asked to mention their religion and the scoring procedure followed was given below.

Category	Score
Hindu	3
Christian	2
Muslim	1

3.3.3.5 Family type

Family type refers to the family composition. Families were classified into single, nuclear and joint family depending upon the composition of the family. A single family refers to either a single male or a single female alone. A nuclear family consisted of husband, wife and their unmarried children if any. Two or more nuclear families living in same household and sharing the same kitchen consisted a joint family. Scoring procedure followed was,

Category	Score
Single	1
Nuclear	2
Joint	3

3.3.3.6 Family size

In this study, family size refers to the total number of members in the family.

Supe and Singh (1968) and Shilaja (1981) used the following procedure for measuring family size.

Category	Score
Family having more than five members	2
Family having five or less members	1

Same procedure was used in this study also.

3.3.3.7 Family income

Seema (1986) 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 family for each year. The incomes from agriculture and other

sources were noted seperately. After computing the total under each head, the respondents were categorised into three groups such as low, medium and high.

In this study, family income refers to the annual income in rupees obtained by the respondent and his or her family members at the time of interview.

Income was measured by computing the annual income obtained by the respondent and other family members through major and subsidiary occupations. The data for this were obtained through direct question to the respondent. Scoring procedure followed was given below.

Category	Score
Rs.5000/- and below	1
Rs.5001/- to Rs. 10,000/-	2
Rs.10,001/- to Rs.15,000/-	3
Rs.15,001/- to Rs.20,000/-	4
Rs.20,001/- and above	5

3.3.3.8 Indebtedness

Viju (1985) referred indebtedness to total land (debt) in terms of money, a tribal farmer owes at the time of

investigation and to various money lending sources such as private money lenders, co-operatives, merchants, traders etc.

In this study, indebtedness was measured as the total debt in terms of money, a labourer owes at the time of investigation to various money lending agencies, such as private individuals, private banks, Co-operative Societies and others.

For no debt, a score of zero was given and '1' for debt of every 500/- rupees.

3.3.3.9 Experience

Chamber's Dictionary (1976) explained experience as practical acquaintance with any matter gained by trial or wisdom.

Rajendran (1978) measured experience of farmers in terms of the total number of years the farmer had been engaged in farming.

Padmanabhan (1981) measured the experience of the labourer in terms of the total number of years the labourer had been engaged in doing agricultural labour as his occupation.

Shilaja (1981) measured the farming experience in terms of the total number of years the leader had been engaged in farming and a weightage of '1' each was given to every 5 years of farming experience. Score assigned was as following.

No. of years	Score
1 - 5	1
6 - 10	2
11 - 15	3
16 - 20	4
21 - 25	5
26 - 30	6
31 - 35	7
36 - 40	8
> 40	9

In this study also, experience was measured in terms of total number of years an agricultural labourer is doing agricultural labour as the main occupation. Scoring procedure used by Shilaja (1981) was followed in this study also.

3.3.3.10 Socio-economic status

Chapin (1928) defined socio-economic status as the position an individual or a family occupies with reference to the prevailing average standards of cultural possessions, effective income, material possessions and participation in the group activities of the community.

Belcher (1951) found that the material possession items tended to be more staple indicators of socio-economic status than those dealing with social participation or cultural possessions.

Balakrishnan (1987) defined socio-economic status of contact farmers as the position, a contact farmer occupies in a community with reference to his occupation, farm holding. caste, socio-political participation, education, material possession, house and household.

Ramachandran (1992) operationalised socio-eoonomic status as multidimensional concept referring to the respondent's occupation, land holdings, education, socio-political participation, possessions, house and household.

In this study, socio-economic status was considered as a multidimensional concept referring to the respondent's

education, occupation, land holding, annual income, material possessions, socio-political participation and house.

An arbitrary scale was developed to measure socio-economic status, as following

a) Education

Category	Score
Illiterate	0
Functionally literate	1
Primary school	2
Secondary school	3
High school	4

b) Occupation

Category	Score
Agricultural labour as the sole occupation	2
Agricultural labour as main occupation with some others as subsidiary	

c) Land holding

Category	Score
No land	0
Less than 10 cents	1
10 cents and more	2

d) Annual income

From occupation Main :

Sub :

From land :

Category	Score
Rs.1000/- and below	1
Rs.1001/- to Rs.2000/-	2
Rs.2001/- to Rs.3000/-	3
Rs.3001/- to Rs.4000/-	4
Rs.4001/- to Rs.5000/-	5
Rs.5001/- to Rs.6000/-	6
Rs.6001/- and above	7

e) Material possession

To measure material possession, the index used by Bhaskaran (1976), Sivaramakrishnan (1976) and Karippai (1981) was adopted with slight modification.

The material possession was measured in terms of the money value of the materials possessed by them. The money value was assigned to each material based on the respondent's assessment and in the case of discrepancies, market values of the materials were assigned. The number of each item possessed by the respondent was multiplied by the money value and the total cost of materials possessed by each of the respondents was found out. Based on this, the respondents were classified into following categories and scores were assigned to each category.

Category	Score
With no (zero) possessions	0
With possession of	
Rs. below 500/-	1
Rs. 501/- to Rs. 1500/-	2
Rs. 1501/- to 3500/-	3
Rs. 3501/- to Rs.6500/-	4
Rs. 6501/- to Rs. 10,500/-	5
Rs. 10,501/- to Rs. 15,500/-	6
Rs. above 15,500/-	7

f) Socio-political participation

Category	Score
No membership	0
Member	1
Official participation	2

g) House

Category	Score
Shed thatched	1
Mud wall and tiled	2
Brick wall and tiled	3
Concrete house	4
Electrified	+1
Not electrified	+0

3.3.3.11 Cosmopoliteness

Rogers and Svenning (1969) referred cosmopoliteness as the extent of contact with outside village such as visiting the nearest town, the purpose of visit and the membership in organizations outside the village.

The same definition was used by Nelson (1992) and Ramachandran (1992). In this study also cosmopoliteness was

referred as above. Scoring procedure developed by Desai (1981) and used by Nelson (1992) with slight modification was adopted in this study also.

(i) Frequency of visit to the nearest town	Score
Two times or more per week	5
Once in a week	4
Once in 15 days	3
Once in a month	2
Seldom	1
Never	0

(ii) Purpose of visit	Score
All relating to Agriculture	5
Some relating to Agriculture	4
Personal/Domestic	3
Entertainment	2
Others	1
No response	0

(iii) Membership in organizations outside the village

	Score
Member	1
No membership	0

Cosmopoliteness score of an individual was worked out by adding the scores obtained by him in all the three aspects. The possible cosmopoliteness score of an individual ranges from 0 to 11.

3.3.3.12 Mass media participation

Singh (1972) referred mass media exposure to the degree to which different mass media sources were utilized by a farmer for gathering information. It is the exposure of farmers to radio, newspaper, magazines, films and field days or agricultural functions.

Ramachandran (1992) defined mass media participation as the number and frequency of mass media information sources used or contacted by the respondents.

In this study, mass media participation was defined as the number and frequency of mass media information sources such as news paper, radio, television, magazines, leaflets, bulletins, films, field days, agricultural functions etc. used or contacted by the agricultural labourer.

Various mass media were listed and the respondents were asked to indicate the frequency of their use (Appendix

I). There were six mass media sources in the list. Response categories namely, daily, once in a week, twice in a week, once in a month and rarely were provided with assigned scores of 5, 4, 3, 2, 1 and 0 respectively for news paper, radio and television. For films, the response categories namely once in a week, once in a month, once in a year and never were used with scores 3, 2, 1 and 0 respectively. For reading magazines, leaflets, bulletins etc. and for participating in field days, agricultural functions etc. the response categories used were regularly, rarely and never with scores 2, 1 and 0 respectively. Mass media participation score of an individual was worked out by adding the scores obtained by him in all the items included. The possible mass media participation score of an individual ranges from 0 to 22.

3.3.3.13 Level of Aspiration

Cantril and Free (1962) developed a self anchoring striving scale for measuring the several level of aspiration (Ladder technique).

Wilkening and Van (1967) measured aspiration as level of striving for attainments in the farm and home areas.

Rajendran (1978), Sushama (1979) and Mathew (1980) used ladder technique to measure level of aspiration.

Padmanabhan (1981) considered only the general level of aspiration and followed Cantril's technique. He defined level of aspiration as the overall life goals in his reality world that a labourer is striving for.

In this study also, the same definition given by Padmanabhan (1981) was adopted. Here also only the general level of aspiration of agricultural labourers was measured, by using Cantril's technique.

According to Cantrils' technique, the respondent was asked to define in his own terms his hopes and fears for the future, or the components of the 'best' and 'worst' possible life for him. This provided a subjective frame of reference against which the respondent could evaluate his personal value satisfactions in life. After these subjective points were obtained, the respondent was shown the picture of a ladder, the top of which represented the best possible life for him as he defined it. He was asked to state where on the ladder of his life he felt he belonged to at present. The step number chosen from the ladder ranging from 0 to 10 represented his score of the present level of aspiration. He was then asked to state where on the ladder he thought he could be five years later. The step chosen represented his

score of the future level of aspiration. Then he was asked to state where on the ladder he thought he was five years before. The step chosen represented his score of the past level of aspiration.

3.3.3.14 Achievement motivation

Mc Clelland (1964) referred achievement motivation as spontaneously expressed desire to do something well for its own sake rather than to gain power, love, recognition or profit.

Kalavathi (1989) defined achievement motivation as the desire for excellence in order for an agricultural graduate to attain a sense of personal accomplishment.

In this study, achievement motivation was defined as the desire to do something by an agricultural labourer to attain a sense of personal accomplishment.

The scale developed by Singh (1974) and used by Manohari (1988) and Kalavati (1989) was followed in this study also (Appendix I).

Scoring procedure is given below.

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

There were a total number of seven statements. Total score for each respondent was obtained by summing up the scores obtained for all items. The sum of scores of all items formed the achievement motivation score of the respondent. The total possible score ranges from 7 to 35.

3.3.3.15 Attitude towards scientific agriculture

Allport (1935) defined attitude as a mental and neural state of readiness organized through experience exerting a directive or dynamic influence upon the individual's response to all objects and situation with which it is related.

Murphy et al., (1937) defined attitude as primarily a way of being set toward or against certain things.

Kuppuswamy (1964) stated that attitudes are learned in the course of life experience which makes the individuals behave in characteristic ways towards persons, objects or issues to which they get related.

Dahama (1970) opined that attitudes are learned responses and since they are always found in relation to objects, ideas and persons, they play an important role in determining human behaviour.

Clifford and Richard (1971) defined attitude as a learned orientation or disposition towards an object or situation which provides a tendency to respond favourably or unfavourably to the object or situation.

Vasudeva (1976) defined attitude as an enduring organisation of evaluative belief and a learned tendency to react positively or negatively, varying in degree to certain class of objects which determine the actual and potential responses of the individual.

For this study attitude was defined as positive or negative affect an agricultural labourer possessed towards scientific agriculture.

An arbitrary scale was developed to measure attitude towards scientific agriculture by Meera (1981). Same scale was used in this study also.

Scale consists of five statements. The responses to the statements were obtained in a five-point continuum ranging from strongly agree to strongly disagree (AppendixI).

The scoring pattern was as following.

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

For negative statements, the scores were in the reverse order. The score of each respondent was obtained by adding up the score corresponding to their response for each statement.

3.3.3.16 Attitude towards Agricultural Labour

Gilmer (1961) stated that job attitude is the feeling the employee has about his job, his readiness to react in one way or another to specific factors related to a job.

Padmanabhan (1981) defined attitude towards job as the degree of positive or negative affect associated with doing agricultural labour as an occupation towards which labourers differ in varying degrees.

In this study, it is taken as the degree of favourableness or unfavourableness towards agricultural labour as occupation by the agricultural labourers.

An attitude scale is one which assesses the degree of affect the individual may associate with some psychological object. In this study, the attitude of agricultural labourers towards agricultural labour was measured using the attitude scale constructed for the purpose using the method of equal appearing interval as described by Thurstone and Chave (1929).

Based on the review of literature and discussion with experts, 50 statements regarding different aspects of agricultural labour were collected, so as to make the respondents, reflect their attitude through their responses to these statements. These statements were edited based on the criteria for selection of attitude statments as given by Edwards (1957). Then selected 35 statements after editing. It

was then presented to 60 judges and asked to rate the statements on a seven-point-continuum based on the degree of favourableness or unfavourableness reflected by each statement. Fifty judges returned the statements after rating. Responses of these judges were considered. From the scores obtained on each statement frequency, proportion and cummulative proportion were computed for each statement.

Taking the median of the distribution of judgements for each statement as the scale value of the statement, the scale value was computed using the formula

$$S = l + \left[\frac{0.50 - \Sigma pb}{pw} \right] i$$

Where S = The median or scale value of the statement

l = The lower limit of the interval in which the median falls

Σpb = The sum of the proportions below the interval in which the median falls

pw = The proportion within the interval in which the median falls

i = The width of the interval and is assumed to be equal to 1.0

Interquartile range or Q value was also worked out by finding the 25th and 75th quartiles.

$$Q_{25} = l + \left[\frac{0.25 - E\ pb}{pw} \right] i$$

$$Q_{75} = l + \left[\frac{0.75 - E\ pb}{pw} \right] i$$

$$Q = Q_{75} - Q_{25}$$

Based on the Q value and S value statements were selected such that the scale values of the statements on the psychological continuum were relatively equally spaced and the Q values were relatively small. Thus 15 statements (Eight favourable and seven unfavourable) were selected for final scale (Appendix I).

Reliability of the scale

A scale is said to be reliable only when it will consistently produce the same or similar results when applied to the same sample. In this study, the reliability of the scale was tested using the split-half method.

Scale administered to 40 non-sample respondents was divided into two halves based on odd-even numbers of statements. Two sets of scores were thus obtained for the same group of respondents and the scores were correlated using the Pearson's product moment correlation coefficient. The coefficient of internal consistency ρ was worked out using the formula $\rho = \frac{\sigma_{xy}}{\sigma_x \times \sigma_y}$

where ρ = correlation between odd and even numbered item scores.

σ_{xy} = Product moment of odd and even numbered items score

σ_x = Standard deviation of the distribution of ood numbered items scores.

σ_y = Standard deviation of the distribution of even numbered items scores.

The rho 'ρ' value obtained will give the half test reliability. Therefore, it was corrected using the Spearman - Brown formula and thus obtained the reliability r_{tt} of the original test. The formula used was,

$$r_{tt} = \frac{2\rho}{1+\rho}$$

The obtained r_{tt} value for agricultural labourers 0.81 was highly significant and hence it was concluded that the scale was reliable.

Validity of the scale

The validity of the scale means the fidelity with which it measures what it is supposed to measure. The developed scale was tested for the following two types of validity.

Content validity

The main criterion for content validity is how well the content of the scale represents the subject matter under the study. Since the items selected for the scale were from the universe of contents, it was ensured that the items covered all aspects of agricultural labourers.

Construct validity

Measurement of a given concept has construct validity to the degree that when it is employed in research, it is able to yield an entire set of relationships that makes good theoretical sense to the researcher.

In the present study, construct validity was tested by calculating the correlation coefficient between attitude and annual income of agricultural labourers. The attitude and annual income scores of 40 non-sample respondents were measured and the correlation between these two sets of scores was found to be 0.83 which was highly significant. Hence it was concluded that the scale had the construct validity too.

The statements in the attitude scale were arranged in random order and administered to the sample respondents and the responses were collected in a dichotomous continuum namely "agree", "disagree".

Taking only the statements with which the respondents agreed, an attitude score was obtained for each respondent from the arithmetic mean of scale values of the statements. The attitude score obtained is regarded as an indication of the location of the subject on the psychological continuum on which the statements have been scaled.

3.3.3.17 Participation in Decision-making

Padmanabhan (1981) defined participation in decision making, as the extent to which the labourer is

involved in decision making with the farmers regarding what to cultivate, how to cultivate etc.

Same definition as given by Padmanabhan (1981) was used in this study also. He developed an arbitrary scale which contained positive and negative statements regarding participation in decision making with the farmer identified through review and discussion. The responses were collected in a three point continuum namely "most often", "sometimes" and "never". The scoring pattern for positive statements was 2, 1 and 0 for most often, sometimes and never respectively. The statements which had contents indicating negative participation were scored in the reverse manner. The score of the respondent were obtained by adding up the scores corresponding to their response pattern for each statement.

Same method was used to study the extent of participation in decision making by agricultural labourers in this study also.

3.3.3.18 Knowledge in farming

English and English (1958) defined knowledge as a body of understood information possessed by an individual or by a culture.

Padmanabhan (1981) defined knowledge as the body of understood information by a labourer in respect of improved agricultural practices and development programmes for agricultural labourers.

In the study knowledge in farming was defined as the body of understood information by an agricultural labourer in respect of different aspects of improved agricultural practices.

A teacher-made test used by Padmanabhan (1981) was used with slight modification to measure knowledge in farming in this study.

Details about the scientific agricultural practices of common crops of Kerala were obtained from Package of Practices Recommendations (1989). Based on this, simple questions were made with respect to crop varieties, pesticides and fungicides, pests, diseases and cultivation aspects [Appendix I]. One score was given to each right answer. Sum of scores for all right answers made by each respondent was taken as his knowledge score in farming.

3.3.3.19 Knowledge about improved farm implements

It was operationalised as the body of understood information by an agricultural labourer in respect of various improved farm implements and mechanisation in agriculture.

A teacher made test including multiple choice items and constant alternative items (True/False) was used which is comparatively simple and easy to operate. Different aspects of mechanisation and improved farm implements were included here [Appendix I]. A score of one was given to a correct answer and zero was given to a wrong answer. Finally the scores were all added to get the knowledge score for each labourer.

3.4 DATA COLLECTION PROCEDURE

A pretested structured interview schedule was used for collecting the information from the main sample respondents of size 120. Data were collected from 120 agricultural labourers (60 men and 60 women) by personal interview by the researcher.

Data regarding the employment and wage pattern of agricultural labourers were collected from the sub sample size of 40 (20 men and 20 women). This was made by keeping a

register with each sub sample respondent, who was asked to note down the daily employment and wage obtained by all working members of his/her family for a period of one year. This was verified by the researcher at fortnightly intervals and collected with the help of a special schedule prepared for this purpose.

3.5. CATEGORISATION OF RESPONDENTS

All the two categories of respondents were categorised into low group and high group based on the scores obtained for their selected characteristics except age, caste, religion, family type and family size. Those respondents with scores below the sample mean for a particular variable were categorised as low group and those with scores equal and above the sample mean for that variable were categorised as high group. Respondents with age below 45 years were grouped as young and those with age above 45 years were grouped as old in the present study. For caste, categorisation followed was as forward, backward and scheduled. Categorisation followed for religion was as Hindus, Christians and Muslims. For family type, the respondents were categorised as single, nuclear and joint. Regarding family size, families with less than 5 members were

grouped as low and those with more than 5 members were grouped as high.

3.6 STATISTICAL TESTS USED

Mean, frequency and percentages were estimated for the various characteristics.

Mann-Whitney U test

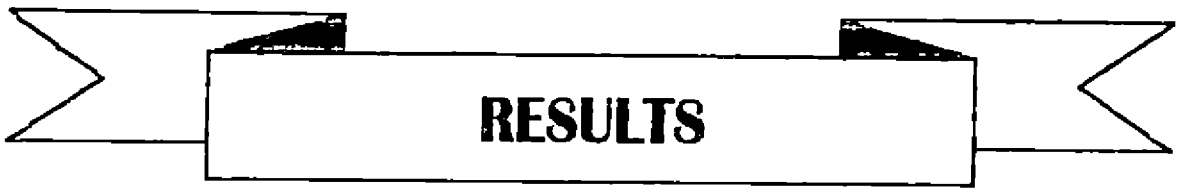
This test was used to test whether there is significant difference between two groups of respondents with respect to variables such as education, Socio-political participation, Socio-economic status, cosmopoliteness, mass media participation, level of aspiration, achievement motivation, attitude towards scientific agriculture, attitude towards agricultural labour, participation in decision making, knowledge in farming, knowledge about improved farm implements etc. which are measured in ordinal scale. The test criteria is

$$Z = \frac{W - \frac{n_1 n_2}{2}}{\sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}}$$

where W = number of times the scores in one group precedes the score of other group.

n_1 = number of observations in group 1.

n_2 = number of observations in group 2.


RESULTS

CHAPTER IV

RESULTS

The results of the study are presented under the following main heads.

4.1 Employment pattern of agricultural labourers.

4.2 Income and wage patterns of agricultural labourers.

4.3 Preference of work by agricultural labourers.

4.4 Socio-economic and psychological characteristics of agricultural labourers.

4.5 Comparison between male and female agricultural labourers with respect to their socio-economic and psychological characteristics.

4.1 Employment pattern of agricultural labourers

The major objective of the study is to analyse the employment pattern of agricultural labourers in Thiruvananthapuram district. The data regarding employment pattern collected from 40 sub sample respondents were analysed and the results are furnished in Table 1.

Table 1. Month wise Employment pattern of Agricultural labourers in Thiruvananthapuram District (No. of days of employment)

Sl. No.	Month	Male				Female			
		Self		Others		Self		Others	
		Agricultural	Non-agricultural	Agricultural	Non-agricultural	Agricultural	Non-agricultural	Agrcultural	Non-agricultural
	1992								
1.	September	11	6	5	4	12	3	6	5
2.	October	9	4	4	3	11	2	8	8
3.	November	7	3	3	3	9	3	11	6
4.	December	6	6	1	4	7	3	6	7
	1993								
5.	January	6	5	2	3	8	5	3	8
6.	February	6	6	4	4	4	4	3	7
7.	March	7	5	2	3	3	5	5	8
8.	April	7	4	3	5	6	3	10	3
9.	May	11	5	2	5	12	2	8	3
10.	June	12	4	8	4	15	2	5	5
11.	July	11	6	9	5	9	3	9	8
12.	August	14	6	4	6	8	2	7	6
	Total	107	60	47	49	104	37	81	74

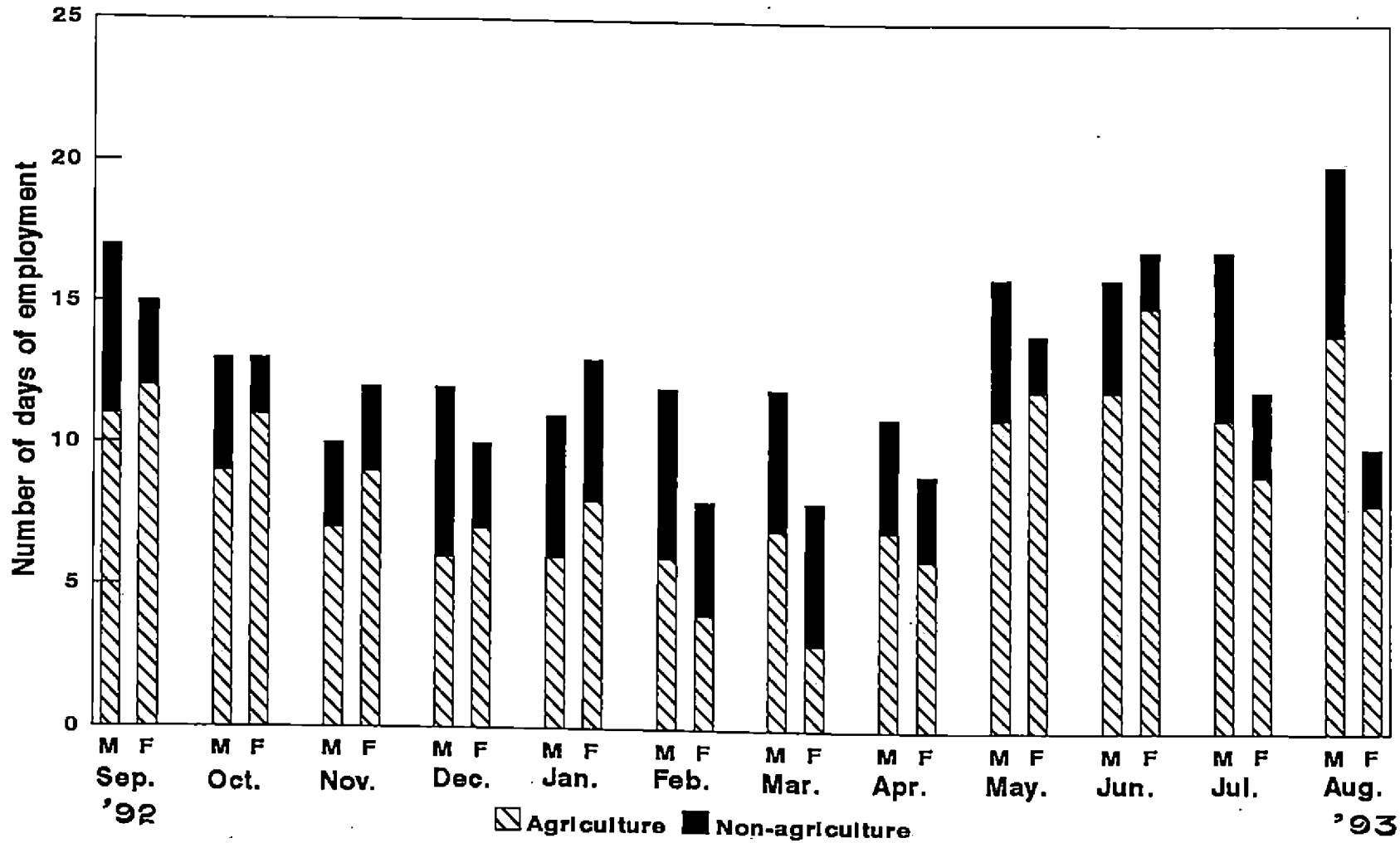


Fig. 2. Employment pattern of Agricultural labourers - a comparison

It was observed that the total number of days of employment was 167 days for male agricultural labourers and 141 days for female agricultural labourers in a year. Of the 167 days of employment per year per male labourer, 107 days were in agricultural labour and the remaining 60 days were in non-agricultural labour. Similarly, female labourers were engaged in agricultural labour for 104 days and in non-agricultural labour for 37 days per year. During the months from May to October, there was relatively more employment in the case of both male and female labourers. During the period from December-January to April, there was relatively more unemployment.

It was also revealed that male labourers were unemployed for 198 days (approximately six months) in a year. Female labourers were unemployed for 224 days (approximately seven months) in a year.

In a male agricultural labour household, other family members gained almost equal days of employment in both agricultural and non-agricultural labour (ie, 47 and 49 days respectively). Similarly in a female agricultural labour household also, other family members gained 81 and 74 days of employment in agricultural and non-agricultural labour respectively.

Table 2. Distribution of working days for various agricultural operations per person per year

Sl. No.	Activity	Average working days	
		Male	Female
1.	Digging	24	-
2.	Ploughing	5	-
3.	Levelling	2	-
4.	Bund preparation	3	-
5.	Sowing	2	1
6.	Transplanting	1	21
7.	Weeding	1	14
8.	Interculturing	8	-
9.	Transportation of manures/ farm produce etc.	9	17
10.	Basin preparation for coconut	14	-
11.	Organic matter/fertilizer application	14	2
12.	Plant protection	2	-
13.	Irrigation	3	15
14.	Harvesting	1	19
15.	Threshing	2	6
16.	Winnowing	-	9
17.	Harvesting tapioca	3	-
18.	Taking mounds for tapioca	10	-
19.	Taking pits for banana	3	-
	Total	107	104

4.1.1 Distribution of working days for various agricultural operations per person per year

Table 2 shows the distribution of working days for various agricultural operations per person per year.

In case of men labourers, the highest number of working days were spent for digging (24 days). They spent 14 days each for basin preparation for coconut and organic manure/fertilizer application. While transplanting provided more working days for women labourers (21 days) followed by harvesting (19 days) and transportation of manure/ farm produce (17 days).

4.2 Income and wage patterns of agricultural labourers

Month-wise income and wage patterns of agricultural labourers were also studied and the results are furnished in Table 3 to 5. Wages in kind was converted to wages in cash for convenience in analysis. It was found that during the months from May to October, both male and female labourers could get more income from agricultural labour as this is the peak period for agricultural works.

A male labourer earn an average annual income of Rs.4439.50 from agricultural labour and Rs.3233.50, from non-

Table 3. Month wise income and wage patterns of male agricultural labourers in Thiruvananthapuram district (In Rupees)

Sl. No.	Month	Self			Others			(Column 5+8) Total household Income Rs. (Month wise)
		Agricultural (Rs.)	Nonagricultural (Rs.)	Total (Rs.)	Agricultural (Rs.)	Non-agricultural (Rs.)	Total (Rs.)	
1	2	3	4	5	6	7	8	9
	1992							
1.	September	465.00	314.00	779.00	189.50	195.50	385.00	1164.00
2.	October	420.00	214.50	634.50	153.00	101.50	254.50	889.00
3.	November	299.00	185.00	484.00	114.50	89.00	203.50	687.50
4.	December	219.50	303.00	522.50	23.50	197.50	221.00	743.50
	1993							
5.	January	231.00	265.50	496.50	62.50	148.00	210.50	707.00
6.	February	218.00	311.20	529.20	97.50	186.20	283.70	812.90
7.	March	251.00	251.60	502.60	44.50	148.50	193.00	695.60
8.	April	314.00	225.70	539.70	122.50	215.00	337.50	877.20
9.	May	491.50	284.00	775.50	72.00	278.00	350.00	1125.50
10.	June	489.00	244.50	733.50	294.00	189.50	483.50	1217.00
11.	July	474.00	309.00	783.00	333.00	223.50	556.50	1339.50
12.	August	567.50	325.50	893.00	153.50	200.50	354.00	1247.00
Average annual income (Rs.)		4439.50	3233.50	7673.00	1660.00	2172.70	3832.70	11505.70
Average income/day (Rs.)		12.16	8.86	21.02	4.55	5.95	10.50	31.52

Table 4. Month wise income and wage patterns of female agricultural labourers in Thiruvananthapuram district (In Rupees)

Sl. No.	Month	Self			Others			(Column 5+8) Total household Income Rs. (Month wise)
		Agricultural (Rs.)	Non-agricultural (Rs.)	Total (Rs.)	Agricultural (Rs.)	Non-agricultural (Rs.)	Total (Rs.)	
1	2	3	4	5	6	7	8	9
	1992							
1.	September	297.25	89.50	386.75	195.60	309.50	505.10	891.85
2.	October	337.20	56.10	393.30	316.70	484.50	801.20	1194.50
3.	November	302.80	63.40	366.20	427.30	311.10	738.40	1104.60
4.	December	201.10	71.90	273.00	238.30	367.80	606.10	879.10
	1993							
5.	January	212.25	106.10	318.35	120.00	448.30	568.30	886.65
6.	February	112.80	86.10	198.90	118.40	418.30	536.70	735.60
7.	March	91.70	112.25	203.95	181.70	423.30	605.00	808.95
8.	April	232.80	78.90	311.70	382.80	163.70	546.50	858.20
9.	May	417.30	56.10	473.40	313.90	188.90	502.80	976.20
10.	June	499.50	40.60	540.10	213.90	248.30	462.20	1002.30
11.	July	306.70	63.35	370.05	204.50	410.60	615.10	985.15
12.	August	254.50	52.20	306.70	272.80	356.10	628.90	935.60
Average annual income (Rs.)		3265.90	876.50	4142.40	2985.90	4130.40	7116.30	11258.70
Average income/day (Rs.)		8.95	2.40	11.35	8.18	11.32	19.50	30.85

agricultural labour. Thus the average income per day was Rs. 12.16 from agricultural labour and Rs.8.86 from non-agricultural labour. Similarly, the other members of his family were also found to have contributed an average annual income of Rs.1660.00 from agricultural labour and Rs.2172.70 from non-agricultural labour. From these two fields, they derived an average income of Rs.4.55 and Rs.5.95 per day per labourer respectively.

It was noticed that female labourer could earn an average annual income of Rs.3265.90 from agricultural labour and Rs.876.50 from non-agricultural labour. Their average daily income from agricultural labour was Rs.8.95 whereas the same from the non-agricultural labour was Rs.2.40. Considering the other members of their family, they derived an average annual income of Rs.2985.90 from agricultural labour and Rs.4130.40 from non-agricultural labour. Their average daily income from agricultural labour was Rs.8.18 and from non-agricultural labour, it was Rs.11.32.

Table 5 shows the average annual income per agricultural labour household. It was observed that the average annual income of the male agricultural labour household was Rs.11505.70 whereas that of a female

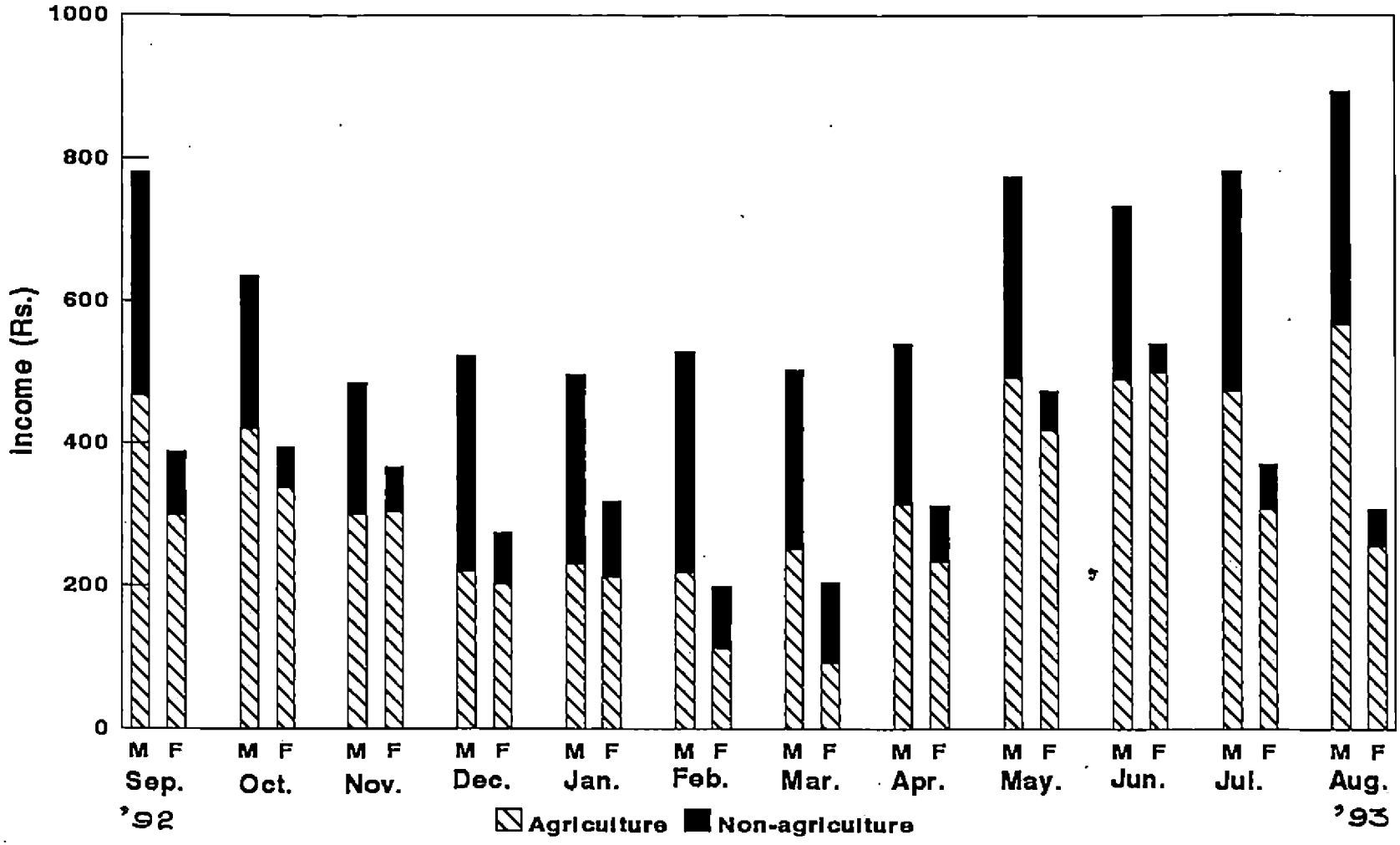


Fig. 3. Wage pattern of Agricultural labourers - a comparison

Table 5. Average annual income of agricultural labour households (In Rupees)

	Male agricultural labour household			Female agricultural labour household		
	Agricultural labour	Non-agricultural labour	Total	Agricultural labour	Non-agricultural labour	Total
Self	4439.50 (57.86)	3233.50 (42.14)	7673.00 (100.00)	3265.90 (78.84)	876.50 (21.16)	4142.40 (100.00)
Others	1660.00 (43.31)	2172.70 (56.69)	3832.70 (100.00)	2985.90 (41.96)	4130.40 (58.04)	7116.30 (100.00)
Grand Total	6099.50 (53.01)	5406.20 (46.99)	11505.70 (100.00)	6251.80 (55.53)	5006.90 (44.47)	11258.70 (100.00)

(Figures in parentheses are percentages)

agricultural labour household was Rs.11258.70. In the case of a male labour household, out of Rs.11505.70 of average annual income, Rs.6099.50 (53.01 per cent) was from agricultural labour and Rs. 5406.20 (46.99 per cent) was from non-agricultural labour. Similarly, in a female labour household, out of the average annual income of Rs.11258.70, Rs.6251.80 (55.53 per cent) was from agricultural labour and Rs.5006.90 (44.47 per cent) was from non-agricultural labour. It was also noticed that the average annual income per agricultural labour household was Rs.11382.20.

Table 6 shows the wage rates for various agricultural operations as revealed from the study. The wage rate for operations such as digging, bund preparation, interculturing, taking mounds for tapioca, taking pits for banana etc. was Rs.45/- to Rs.50/- per day for male labourers. For transportation of manures and fertilizers, the wage rate was Rs.40/- to Rs.50/- per day. For transplanting and weeding the female labourers were found to have received a wage rate of Rs.35/- per day. For ploughing the wage rate was Rs.60/- to Rs.80/- per day. For fertilizer application, the wage rate was Rs.45/- to Rs.55/- per day.

Table 6. Wage rates for various agricultural operations (In Rupees per head per day)

Sl. No.	Name of operations	Wage rates	
		Male	Female
1.	Digging	45/- to 50/-	-
2.	Ploughing	60/- to 80/-	-
3.	Bund preparation	45/- to 50/-	-
4.	Transplanting	-	35/-
5.	Weeding	-	35/-
6.	Interculturing	45/- to 50/-	-
7.	Taking mounds for tapioca	45/- to 50/-	-
8.	Taking pits for banana	45/- to 50/-	-
9.	Fertilizer application	45/- to 55/-	-
10.	Transportation of manures and fertilizers	40/- to 50/-	40/- to 50/-

4.3 Preference of work by agricultural labourers

One of the important objectives of the study is to analyse the work preference of male and female agricultural labourers in Thiruvananthapuram district. different agricultural operations generally done by male and female labourers, with respect to the cultivation of major crops of Kerala were listed separately and analysed based on the ranks given by the respondents to each operation according to their preference. Total number of respondents engaged in the cultivation of each crop and frequency of ranking based on the preference of work were furnished in table 7 to 11.

4.3.1 Preference of work by agricultural labourers in paddy cultivation

Out of 60 male respondents, 56 were found to have engaged in works related to paddy cultivation.

Table 7 shows that 'ploughing' was the most preferred cultural operation in paddy cultivation as 45 respondents have given their first preference to this operation. Thirty eight respondents placed, 'digging' in the second rank. 'Levelling' and 'harvesting' were given the

Table 7. Preference of work by agricultural labourers in paddy cultivation

(A) Men (n = 56)

Sl. No.	Name of Operations	Frequency of ranking										
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI
1.	Ploughing	45 (80.35)	7 (12.50)	1 (1.79)	2 (3.57)	1 (1.79)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2.	Digging	7 (12.50)	38 (67.86)	2 (3.57)	4 (7.14)	4 (7.14)	1 (1.79)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
3.	Levelling	0 (0)	2 (3.57)	19 (33.92)	1 (1.79)	2 (3.57)	3 (5.36)	4 (7.14)	3 (5.36)	21 (37.5)	1 (1.79)	0 (0)
4.	Organic manure application	0 (0)	2 (3.57)	8 (14.29)	3 (5.36)	14 (25.00)	8 (14.29)	9 (16.06)	10 (17.86)	2 (3.57)	0 (0)	0 (0)
5.	Sowing	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.79)	2 (3.59)	0 (0)	18 (32.14)	35 (62.5)
6.	Irrigation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (3.57)	3 (5.36)	1 (1.79)	10 (17.86)	25 (44.64)	15 (26.78)
7.	Fertilizer application	0 (0)	0 (0)	4 (7.14)	19 (33.93)	9 (16.06)	6 (10.72)	11 (19.64)	6 (10.72)	1 (1.79)	0 (0)	0 (0)
8.	Spraying PP chemicals	0 (0)	0 (0)	4 (7.14)	7 (12.50)	8 (14.29)	13 (23.21)	2 (3.57)	8 (14.29)	7 (12.5)	3 (5.36)	4 (7.14)
9.	Harvesting	4 (7.14)	3 (5.36)	12 (21.43)	7 (12.50)	3 (5.36)	10 (17.86)	9 (16.06)	1 (1.79)	5 (8.93)	0 (0)	2 (3.57)
10.	Threshing	0 (0)	3 (5.36)	1 (1.79)	10 (17.86)	6 (10.72)	2 (3.57)	10 (17.86)	12 (21.43)	4 (7.14)	6 (10.72)	2 (3.57)
11.	Transportation	0 (0)	1 (1.79)	5 (8.93)	3 (5.36)	9 (16.06)	11 (19.64)	7 (12.5)	14 (25.0)	3 (5.36)	0 (0)	3 (5.36)

Figures in parenthesis are the percentages.

(Contd...)

(Contd...)

(B) Women (n = 60)

Sl. No.	Name of operations	Frequency of ranking						
		I	II	III	IV	V	VI	VII
1.	Transportation of organic manure	0 (0)	0 (0)	2 (3.33)	0 (0)	4 (6.67)	20 (33.33)	34 (56.67)
2.	Transplanting	50 (83.33)	1 (1.67)	1 (1.67)	6 (10.0)	2 (3.33)	0 (0)	0 (0)
3.	Weeding	0 (0)	29 (48.34)	2 (3.33)	3 (5.0)	17 (28.33)	2 (3.33)	7 (11.67)
4.	Harvesting	10 (16.67)	21 (35.0)	24 (40.0)	1 (1.67)	4 (6.67)	0 (0)	0 (0)
5.	Transportation of harvested produce	0 (0)	0 (0)	0 (0)	7 (11.67)	7 (11.67)	22 (36.67)	24 (40.0)
6.	Threshing	0 (0)	9 (15.0)	22 (36.67)	13 (21.67)	9 (15.0)	1 (1.67)	6 (10.0)
7.	Winnowing	0 (0)	0 (0)	8 (13.34)	31 (51.67)	14 (23.33)	5 (8.33)	2 (3.38)

Figures in parenthesis are the percentages.

third rank by 19 and 12 respondents respectively. On the other hand, the least preference was given to 'sowing' as ranked last by 35 respondents. Tenth rank was given to 'irrigation' by 25 respondents.

In the case of female labourers, all respondents interviewed were found to have engaged in works related to paddy cultivation. Among the various cultural operations listed, 'transplanting' was the most preferred one as preferred by 50 respondents. 'Weeding' was given second rank by 29 respondents. 'Harvesting' and 'threshing' were ranked as third most preferred jobs by 24 and 22 respondents respectively. 'Winnowing' was ranked fourth by 31 respondents. The least preference was given to 'transportation of harvested produce' as indicated by 22 respondents followed by 'transportation of organic manure' preferred last by 34 respondents.

4.3.2 Preference of work by agricultural labourers in coconut cultivation

Out of 60 male respondents interviewed, 57 were found to have engaged in works related to coconut cultivation (table 8). Among them, 39 respondents placed first rank to the 'basin preparation' based on their preference. Second

Table 8. Preference of work by agricultural labourers in coconut cultivation
(A) Men (n = 57)

Sl. No.	Name of operations	Frequency of ranking					
		I	II	III	IV	V	VI
1.	Land preparation	17 (29.83)	30 (52.63)	1 (1.75)	9 (15.79)	0 (0)	0 (0)
2.	Basin preparation	39 (68.42)	16 (28.07)	2 (3.51)	0 (0)	0 (0)	0 (0)
3.	Organic manure application	0 (0)	3 (5.26)	30 (52.63)	20 (35.09)	4 (7.02)	0 (0)
4.	Fertilizer application	1 (1.75)	7 (12.28)	21 (36.84)	26 (45.62)	2 (3.51)	0 (0)
5.	Spraying PP chemicals	0 (0)	0 (0)	1 (1.75)	1 (1.75)	8 (14.04)	47 (82.46)
6.	Irrigation	0 (0)	0 (0)	2 (3.51)	1 (1.75)	22 (38.6)	32 (56.14)

Figures in parenthesis are the percentages.

preference was given to 'land preparation' as preferred by 30 respondents, followed by 'organic manure application' ranked third by 30 respondents. Fourth and fifth ranks were given for 'fertilizer application' and 'irrigation' as preferred by 26 and 22 respondents respectively. The least preference was given to 'plant protection' by 47 respondents.

4.3.3 Preference of work by agricultural labourers in vegetable cultivation

Thirty eight male labourers and 31 female labourers were found to have engaged in works related to vegetable cultivation (table 9).

It was observed that 'land preparation' was the most preferred job among various cultural operations listed for male labourers with respect to vegetable cultivation. First rank was given to 'land preparation' by 37 respondents. 12 respondents preferred 'irrigation' as the next most preferred job. 'Fertilizer application' and 'spraying plant protection chemicals' were given the third place according to the preference as indicated by 14 and 10 respondents respectively. Next rank was to 'harvesting' which was preferred by 14 respondents. 'Transportation' and 'weeding'

Table 9. Preference of work by agricultural labourers in vegetable cultivation

(A) Men (n = 38)

Sl. No.	Name of operations	Frequency of ranking							
		I	II	III	IV	V	VI	VII	VIII
1.	Land preparation	37 (97.37)	0 (0)	1 (2.63)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2.	Sowing	0. (0)	1 (2.63)	0 (0)	1 (2.63)	2 (5.26)	2 (5.26)	9 (23.68)	23 (60.54)
3.	Fertilizer application	0 (0)	13 (34.21)	14 (36.84)	4 (10.53)	5 (13.16)	2 (5.26)	0 (0)	0 (0)
4.	Spraying pp chemicals	0 (0)	9 (23.68)	10 (26.32)	4 (10.53)	1 (2.63)	5 (13.16)	5 (13.16)	4 (10.53)
5.	Irrigation	1 (2.63)	12 (31.58)	4 (10.53)	11 (28.94)	4 (10.53)	4 (10.53)	1 (2.63)	1 (2.63)
6.	Weeding	0 (0)	0 (0)	1 (2.63)	2 (5.26)	2 (5.26)	6 (15.79)	18 (47.37)	9 (23.68)
7.	Harvesting	0 (0)	1 (2.63)	5 (13.16)	7 (18.43)	14 (36.84)	8 (21.05)	2 (5.26)	1 (2.63)
8.	Transportation	0 (0)	2 (5.26)	3 (7.89)	9 (23.69)	10 (26.32)	11 (28.95)	3 (7.89)	0 (0)

Figures in parenthesis are the percentages

(Contd..)

(Contd...)

(B) Women (n = 31)

Sl. No.	Name of operations	Frequency of ranking						
		I	II	III	IV	V	VI	VII
1.	Sowing	0 (0)	2 (6.45)	9 (29.03)	2 (6.45)	6 (19.35)	7 (22.58)	5 (16.14)
2.	Fertilizer application	0 (0)	0 (0)	0 (0)	1 (3.23)	6 (19.35)	8 (25.81)	16 (12.90)
3.	Irrigation	25 (80.65)	0 (0)	3 (9.68)	3 (9.68)	0 (0)	0 (0)	0 (0)
4.	Weeding	2 (6.45)	13 (41.95)	4 (12.9)	6 (19.35)	6 (19.35)	0 (0)	0 (0)
5.	Plant protection	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (6.45)	29 (93.55)
6.	Harvesting	0 (0)	9 (29.03)	6 (19.35)	11 (35.48)	1 (3.23)	4 (12.9)	0 (0)
7.	Transportation of harvested produce	0 (0)	3 (9.68)	8 (25.81)	5 (16.14)	12 (38.7)	3 (9.68)	0 (0)

Figures in parenthesis are the percentages.

were the operations which were ranked least in the order of preference by 11 and 18 respondents respectively. 'Sowing' was the least preferred job in vegetable cultivation which was ranked as the last item by 23 respondents.

Female labourers preferred 'irrigation' most, as ranked by 25 respondents. Second preference was given to 'weeding' by 13 respondents followed by 'sowing' as preferred by 9 respondents. Fourth rank was placed to 'harvesting' by 11 respondents. Next preference was for 'transportation of harvested produce' as preferred by 12 respondents. Comparatively lesser preference was given to 'fertilizer application' as ranked sixth and seventh by 8 and 16 respondents respectively. Least preference was given to 'plant protection' by 29 respondents.

4.3.4 Preference of work by agricultural labourers in tapioca cultivation

With respect to the works related to tapioca cultivation, out of 60 male respondents, 52 were engaged whereas only 20 out of 60 female labourers were engaged in it (table 10).

Among the various works listed, 'intercultural operation' and 'taking mounds' were ranked first by 23 and 27

Table 10. Preference of work by agricultural labourers in tapioca cultivation
(A) Men (n = 52)

Sl. No.	Name of operations	Frequency of ranking								
		I	II	III	IV	V	VI	VII	VIII	IX
1.	Land preparation	1 (1.92)	8 (15.38)	22 (42.31)	0 (0)	13 (25.0)	3 (5.77)	5 (9.62)	0 (0)	0 (0)
2.	Taking mounds	27 (51.93)	20 (38.46)	1 (1.92)	4 (7.69)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
3.	Preparation of setts	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.92)	6 (11.54)	45 (86.54)
4.	Planting	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.92)	1 (1.92)	43 (82.69)	7 (13.47)
5.	Organic manure application	0 (0)	0 (0)	1 (1.92)	8 (15.38)	5 (9.62)	15 (28.85)	23 (42.23)	0 (0)	0 (0)
6.	Fertilizer application	0 (0)	0 (0)	0 (0)	5 (9.62)	13 (25.0)	22 (42.31)	11 (21.15)	1 (1.92)	0 (0)
7.	Intercultural operation	23 (44.24)	20 (38.46)	8 (15.38)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1.92)	0 (0)
8.	Harvesting	0 (0)	4 (7.69)	16 (30.76)	18 (34.63)	2 (3.85)	10 (19.23)	1 (1.92)	1 (1.92)	0 (0)
9.	Transportation	0 (0)	0 (0)	4 (7.69)	17 (32.69)	19 (36.54)	2 (3.85)	9 (17.31)	0 (0)	1 (1.92)

Figures in parenthesis are the percentages.

(Contd...)

(Contd...)

(B) Women (n = 20)

Sl. No.	Name of operations	Frequency of ranking				
		I	II	III	IV	V
1.	Preparation of setts	3 (15.0)	2 (10.0)	3 (15.0)	12 (60.0)	0 (0)
2.	Planting	2 (10.0)	14 (70.0)	2 (10.0)	2 (10.0)	0 (0)
3.	Transportation of manures and fertilizers	15 (75.0)	3 (15.0)	2 (10.0)	0 (0)	0 (0)
4.	Harvesting	5 (25.0)	4 (20.0)	11 (55.0)	0 (0)	0 (0)
5.	Transportation of harvested produce	2 (10.0)	2 (10.0)	3 (15.0)	3 (15.0)	10 (50.0)

Figures in parenthesis are the percentages.

male respondents respectively. Next preference was given to 'land preparation' by 22 respondents followed by 'harvesting' as preferred by 18 respondents. 'Transportation' was the next preferred job as ranked by 19 respondents. Next rank was given to 'fertilizer application' followed by 'organic manure application' by 22 and 23 respondents respectively. Comparatively lesser preference was given to 'planting' as indicated by 43 respondents. The least preference was for 'preparation of setts' which was ranked as the nineth item by 45 respondents.

Among the various jobs, 'transportation of manures and fertilizers' was the most preferred one as ranked by 15 respondents followed by 'planting' preferred by 14 respondents. Then 'harvesting' was preferred as the third item by 11 respondents. Least preference was put to 'preparation of setts' and 'transportation of harvested produce' as ranked by 12 and 10 respondents respectively.

4.3.5. Preference of work by agricultural labourers in banana cultivation

Preference of work in banana cultivation given by 28 male labourers and 10 female labourers was presented in table 11.

Table 11. Preference of work by agricultural labourers in banana cultivation
(A) Men (n = 28)

Sl. No.	Name of operations	Frequency of ranking									
		I	II	III	IV	V	VI	VII	VIII	IX	X
1.	Taking pits	28 (100.0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2.	Preparation of suckers	0 (0)	1 (3.57)	1 (3.57)	2 (7.14)	0 (0)	3 (10.71)	4 (14.29)	3 (10.71)	8 (28.56)	6 (21.5)
3.	Transportation of suckers	0 (0)	0 (0)	3 (10.71)	3 (10.71)	3 (10.71)	10 (35.73)	4 (14.29)	2 (7.14)	2 (7.14)	1 (3.57)
4.	Planting	0 (0)	0 (0)	0 (0)	3 (10.71)	2 (7.14)	2 (7.14)	5 (17.86)	3 (10.71)	4 (14.29)	9 (32.15)
5.	Organic manure application	2 (7.14)	15 (53.59)	3 (10.71)	1 (3.57)	3 (10.71)	1 (3.57)	2 (7.14)	1 (3.57)	0 (0)	0 (0)
6.	Fertilizer application	8 (28.56)	4 (53.59)	15 (53.39)	1 (3.57)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
7.	PP chemical application	0 (0)	2 (7.14)	3 (10.71)	1 (3.57)	6 (21.43)	5 (17.87)	8 (28.57)	2 (7.14)	1 (3.57)	0 (0)
8.	Irrigation	3 (10.71)	5 (17.87)	4 (14.28)	14 (50.00)	1 (3.57)	1 (3.57)	0 (0)	0 (0)	0 (0)	0 (0)
9.	Harvesting	0 (0)	1 (3.57)	1 (3.57)	1 (3.57)	4 (14.28)	2 (7.14)	4 (14.28)	10 (35.74)	2 (7.14)	3 (10.71)
10.	Transportation	2 (7.14)	4 (14.28)	3 (10.71)	1 (3.57)	10 (35.74)	4 (14.28)	2 (7.14)	1 (3.57)	1 (3.57)	0 (0)

figures in parenthesis are the percentages.

(Contd...)

(Contd...)

(B) Women (n = 10)

Sl. No.	Name of operations	Frequency of ranking				
		I	II	III	IV	V
1.	Transportation of suckers	1 (10.0)	1 (10.0)	6 (60.0)	1 (10.0)	1 (10.0)
2.	Preparation of suckers	2 (20.0)	3 (30.0)	0 (0)	4 (40.0)	1 (10.0)
3.	Irrigation	9 (90.0)	1 (10.0)	0 (0)	0 (0)	0 (0)
4.	Transportation of manures & fertilisers	1 (10.0)	8 (80.0)	1 (10.0)	0 (0)	0 (0)
5.	Transportation of harvested produce	1 (10.0)	2 (20.0)	2 (20.0)	1 (10.0)	4 (40.0)

Figures in parentheses are the percentages.

'Taking pits' was the most preferred job by male labourers. It was ranked as the first job by all the 28 respondents. Next rank was given to 'organic manure application' by 15 respondents. 'Fertilizer application' was ranked as the third item by 15 respondents. Fourth and fifth ranks were given to 'irrigation' and 'transportation' as ranked by 14 and 10 respondents respectively. Comparatively lesser preference was given to 'transportation of suckers' followed by 'plant protection' and 'harvesting' as preferred by 10, 8 and 10 respondents respectively. Least preference was placed by 8 and 9 respondents to 'preparation of suckers and 'planting' respectively.

Regarding the female labourers, 9 respondents placed the first rank to 'irrigation'. Second rank was given to 'transportation of manures and fertilizers' as indicated by 8 respondents. Third and fourth ranks were given to 'transportation of suckers' and 'preparation of suckers' as ranked by 6 and 4 respondents respectively. Least preference was placed by 4 respondents to 'transportation of harvested produce'.

4.4 Socio-economic and psychological characteristics of agricultural labourers

An attempt was made to study the socio-economic and psychological characteristics of the respondents and the results are presented in Table 12 and 13.

4.4.1 Socio-economic and psychological characteristics of male agricultural labourers

Distribution of the male agricultural labourers based on their socio-economic and psychological characteristics was furnished in Table 12.

As evidenced from Table 12, 53.33 per cent of the male labourers were below 45 years of age while 46.67 per cent were above 45 years of age.

Regarding caste, more than three fourth of the male respondents (76.67 per cent) were scheduled castes/scheduled tribes whereas 15 per cent belonged to backward castes. Only 8.38 per cent of the male labourers were from forward castes.

With respect to religion, 95 per cent of male labourers were Hindus and the remaining 5 per cent were Christians. No respondents were found belonging to Muslim religion.

About three-fourth (76.66 per cent) of the male respondents belonged to nuclear families whereas 21.67 per cent were from joint families. Only 1.67 per cent was from single person family type.

While studying family size, it was observed that 68.33 per cent were with low family size.

Regarding family income, more than two-third of male labourers (76.67 per cent) were with low family income whereas 23.33 per cent were with high family income.

Nearly two-third of the male labourers (63.33 per cent) were having low indebtedness while 36.67 per cent were with high indebtedness.

Similarly 63.33 per cent of male labourers were with an experience upto 25 years while the remaining 36.67 per cent were found to be having an experience above 25 years.

In the case of education, 73.33 of the male respondents belonged to high education group whereas 26.67 percent were with low education.

Table 12. Distribution of the male agricultural labourers based on their socio-economic and psychological characteristics (n = 60)

Characteristics	Obtained Score Range				
	Category	Minimum	Maximum	Frequency	Per cent
Age	< 45 years	18	69	32	53.33
	≥ 45 years			28	46.67
Caste	Forward			5	8.33
	Backward	1	3	9	15.00
	Scheduled			46	76.67
Religion	Hindu			57	95.00
	Christian	1	3	3	5.00
	Muslim			0	0.00
Family type	Single			1	1.67
	Nuclear	1	3	46	76.66
	Joint			13	21.67
Family size	< 5 members			41	68.33
	≥ 5 members	1	2	19	31.67
Family income	< 1.97			46	76.67
	≥ 1.97	1	5	14	23.33
Indebtedness	< 3.53			38	63.33
	≥ 3.53	0	30	22	36.67
Experience	< 5.2			38	63.33
	≥ 5.2	1	9	22	36.67
Education	< 2.88			16	26.67
	≥ 2.88	0	4	44	73.33
Socio-political participation	< 0,77			20	33.33
	≥ 0.77	0	2	40	66.67
Socio-economic status	< 16.35			29	48.33
	≥ 16.35	5	25	31	51.67

(Contd...)

(Contd...)

Characteristics	Obtained Score Range				
	Category	Minimum	Maximum	Frequency	Per cent
Cosmopoliteness	< 7.25			21	35.00
	≥ 7.25	0	9	39	65.00
Mass media participation	< 9.52			27	45.00
	≥ 9.52	0	20	33	55.00
Level of aspiration (past)	< 2.00			16	28.67
	≥ 2.00	1	4	44	73.33
Level of aspiration (present)	< 3.05			17	28.33
	≥ 3.05	1	5	43	71.67
Level of aspiration (future)	< 3.87			23	38.33
	≥ 3.87	2	7	37	61.67
Achievement motivation	< 24.6			29	48.33
	≥ 24.6	13	32	31	51.67
Attitude towards scientific agriculture	< 15.15			26	43.33
	≥ 15.15	8	22	34	56.67
Attitude towards agricultural labour	< 4.30			30	50.00
	≥ 4.30	3.93	5.06	30	50.00
Participation in decision making	< 13.8			21	35.00
	≥ 13.8	0	24	39	65.00
Knowledge in farming	< 21.4			29	48.33
	≥ 21.4	5	39	31	51.67
Knowledge about improved farm implements	< 10.18			36	60.00
	≥ 10.18	4	15	24	40.00

Regarding socio-political participation, 66.67 per cent of them belonged to high group while 33.33 per cent were with low socio-political participation.

In the case of socio-economic status, 51.67 percent of male labourers belonged to high socio-economic status group while 48.33 per cent belonged to low group.

Regarding cosmopoliteness, nearly two-third of the male respondents (65 per cent) were found to have high cosmopoliteness whereas 35 per cent were found to have low cosmopoliteness.

With respect to mass-media participation, 55 per cent of them had high mass media participation while 45 percent had low participation.

It was also noticed that majority of the male labourers were having high levels of aspirations - past (73.33 per cent), present (71.67 per cent) and future (61.67 per cent).

High achievement motivation was observed in the case of 51.67 per cent while 48.33 per cent were having low achievement motivation.

Nearly two-third of the male respondents (56.67 per cent) were found to be having higher attitude towards scientific agriculture than the remaining 43.33 per cent.

While studying attitude towards agricultural labour, equal proportion of male respondents (50 per cent each) were found in low and high groups.

Regarding participation in decision making, it was seen that nearly two-third of them (65 per cent) were with high participation while 35 per cent were with low participation.

It was also revealed that 51.67 per cent of male labourers were coming under the high group and 48.33 per cent in the low group with regard to knowledge in farming.

Sixty per cent of male labourers were found to be possessing low level of knowledge about improved farm implements while 40 per cent were having comparatively high level of knowledge.

4.4.2 Socio-economic and psychological characteristics of female agricultural labourers

Distribution of female agricultural labourers based on their socio-economic and psychological characteristics was

presented in Table 13. Following are the results as evidenced from it.

Equal proportion of female respondents (50 per cent each) were found to be within two categories of age such as above 45 years and below 45 years.

Majority of them (68.33 per cent) were from scheduled caste/scheduled tribe categories while 21.67 percent were from backward castes and 10 per cent were from forward castes.

Among the female labourers studied, 83.33 per cent were Hindus whereas 16.67 per cent were Christians. Here also no respondent was found to be belonged to Muslim religion.

Sixty per cent of female labourers were from nuclear type families, 38.33 per cent were from joint families and only 1.67 per cent was from single person family type.

Regarding family size, 63.33 per cent of them belonged to low group while 36.67 per cent belonged to high group.

More than two-third of the female respondents (80 per cent) were found to be having low family income whereas only 20 per cent of them were with high family income.

Among the female labourers studied, 71.67 per cent were found to have low indebtedness and 28.33 per cent with high indebtedness.

Only 46.67 per cent of female respondents were found to be having an experience above 25 years whereas the remaining 53.33 per cent were with an experience upto 25 years.

Regarding education, majority of the female labourers (73.33 per cent) were found to be low educated. Only 26.67 per cent of them were with high education.

About 60 per cent of female labourers were found low in socio-political participation, while 40 per cent had high socio-political participation.

With respect to socio-economic status, 51.67 per cent of the female labourers came in the low group and 48.33 per cent in the high group.

Table 13. Distribution of the female agricultural labourers based on their socio-economic and psychological characteristics
(n = 60)

Characteristics	Obtained Score Range				
	Category	Minimum	Maximum	Frequency	Per cent
Age	< 45 years	23	70	30	50.00
	≥ 45 years			30	50.00
Caste	Forward			6	10.00
	Backward	1	3	13	21.67
	Scheduled			41	68.33
Religion	Hindu			50	83.33
	Christian	1	3	10	16.67
	Muslim			0	0.00
Family type	Single			1	1.67
	Nuclear	1	3	36	60.00
	Joint			23	38.33
Family size	< 5 members			38	63.33
	≥ 5 members	1	2	22	36.67
Family income	< 1.90			48	80.00
	≥ 1.90	1	5	12	20.00
Indebtedness	< 2.53			43	71.67
	≥ 3.53	0	20	17	28.33
Experience	< 5.67			32	53.33
	≥ 5.67	1	9	28	46.67
Education	< 1.57			44	73.33
	≥ 1.57	0	4	16	26.67
Socio-political participation	< 0.43			36	60.00
	≥ 0.43	0	2	24	40.00
Socio-economic status	< 11.68			31	51.67
	≥ 11.68	5	22	29	48.33
Cosmopoliteness	< 3.67			19	31.67
	≥ 3.67	0	9	41	68.33

(Contd....)

(Contd....)

Characteristics	Obtained Score Range				
	Category	Minimum	Maximum	Frequency	Per cent
Mass media participation	< 2.2			44	73.33
	≥ 2.2	0	18	16	26.67
Level of aspiration (past)	< 1.72			22	36.67
	≥ 1.72	0	4	38	63.33
Level of aspiration (present)	< 2.58			27	45.00
	≥ 2.58	0	5	33	55.00
Level of aspiration (future)	< 3.05			41	68.33
	≥ 3.05	1	6	19	31.67
Achievement motivation	< 22.28			36	60.00
	≥ 22.28	16	30	24	40.00
Attitude towards scientific agriculture	< 13.13			36	60.00
	≥ 13.13	7	20	24	40.00
Attitude towards agricultural labour	< 4.31			39	65.00
	≥ 4.31	3.78	5.86	21	35.00
Participation in decision making	< 2.88			45	75.00
	≥ 2.88	0	18	15	25.00
Knowledge in farming	< 9.72			29	48.33
	≥ 9.72	0	26	31	51.67
Knowledge about improved farm implements	< 5.35			34	56.67
	≥ 5.35	0	15	26	43.33

More than two-third (68.33 per cent) of the female labourers were in the high group with regard to cosmopoliteness whereas the remaining 31.67 per cent were in the low group.

Majority of female labourers (73.33 per cent) were found to be having low mass media participation. Only 26.67 per cent had high mass media participation.

Regarding level of aspiration, majority had high level of past and present aspiration (63.33 per cent and 55 per cent respectively). But 68.33 per cent of them were with low level of future aspiration. Only 31.67 per cent of the female labourers were found to be having high level of aspiration about future.

About 60 per cent of female respondents were found to be having high achievement motivation and high attitude towards scientific agriculture.

Majority (65 per cent) of the female labourers had a low attitude towards agricultural labour.

Three-fourth of the female labourers were with low participation in decision making.

About 51.67 per cent of them were found to have high knowledge in farming.

Regarding knowledge about improved farm implements, majority (56.67 per cent) of the female labourers were in the low group while 43.33 per cent were in the high group.

4.5 Comparison between male and female agricultural labourers with respect to their socio-economic and psychological characteristics

The mean scores with respect to the socio-economic and psychological characteristics of both male and female agricultural labourers are presented in Table 14.

From Table 14, it is clear that the calculated z value was significant at 1 per cent level of probability for all socio-economic and psychological characteristics under study, except for level of aspiration (past) and attitude towards agricultural labour. With respect to the level of aspiration (past) and attitude towards agricultural labour, there was no significant difference between male and female agricultural labourers, as revealed by the Mann Whitney test.

A bird's eye view of the results in Table 14 also shows that mean scores for all characteristics of male

Table 14. Comparison between male and female agricultural labourers with respect to their socio-economic and psychological characteristics

(n = 60 each)

Sl. No.	Characteristics	Mean scores of respondents		Z value
		Male	Female	
1.	Education	2.88	1.57	5.012**
2.	Socio-political participation	0.77	0.43	2.687**
3.	Socio-economic status	16.35	11.68	5.529**
4.	Cosmopoliteness	7.25	3.67	7.141**
5.	Mass media participation	9.52	2.20	6.582**
6.	Level of aspiration (past)	2.00	1.72	1.869ns
7.	Level of aspiration (present)	3.05	2.58	2.624**
8.	Level of aspiration (future)	3.87	3.05	3.574**
9.	Achievement motivation	24.60	22.28	3.529**
10.	Attitude towards scientific agriculture	15.15	13.13	3.362**
11.	Attitude towards agricultural labour	4.30	4.31	0.772ns
12.	Participation in decision making	13.80	2.88	6.587**
13.	Knowledge in farming	21.40	9.72	7.309**
14.	Knowledge about improved farm implements	10.18	5.35	8.881**

ns - Not significant

** - Significant at 1 per cent level of probability

labourers except for attitude towards agricultural labour were much higher than that of female labourers. Even then the difference between the male and female agricultural labourers with respect to their attitude towards agricultural labour was 0.01 only.


DISCUSSION

CHAPTER V

DISCUSSION

The results obtained in the present study are discussed in this chapter under the following main heads.

5.1 Employment pattern of agricultural labourers.

5.2 Income and wage patterns of agricultural labourers.

5.3 Preference of work by agricultural labourers.

5.4 Distribution of agricultural labourers based on their socio-economic and psychological characteristics.

5.5 Comparison between male and female agricultural labourers with respect to their socio-economic and psychological characteristics.

5.1 Employment pattern of Agricultural labourers

Employment pattern of agricultural labourers was analysed from the subsample in terms of total number of days of employment obtained by them including both agricultural and non-agricultural labour. The results of this analysis are presented in Tables 1 and 2.

Total number of days employed by a male agricultural labourer during the period of one year was found to be 167 days as against the state average of 170 days and the district average of 163 days as on 1988. Similarly the total number of days of employment gained by a female agricultural labourer during the period of one year was 141 days as against the state average of 139 days and the district average of 155 days as on 1988 (Statistics for Planning, 1988). The data also showed that both male and female agricultural labourers are getting more days of employment in agricultural labour than non-agricultural labour.

During the months from May to October, both male and female labourers got more employment. In Kerala, agriculture is mainly dependent on monsoon. It is mainly during the onset of South West monsoon (April-May) and North East monsoon (September-October), various cultural operations are being done in Kerala. Regarding paddy, land preparation for first crop (Virippu) starts during April-May. Land preparation, application of fertilizers, sowing etc. are the operations in paddy cultivation during April-May. During June, land preparation of main field, transplanting, top

dressing etc. are done. During July-August months, second top dressing, plant protection, weeding etc. are the main works in paddy fields. During September-October months, harvesting of first crop will be over. At the same time, land preparation for the second crop (Mundakan) will be started. By December-January, the second crop will be ready for harvest. Upto these months, land preparation, sowing, transplanting, fertilizer application, weeding, plant protection, harvesting etc. as done in the case of first crop are to be done here also.

Regarding coconut and tapioca, land preparation, intercultural operations, fertilizer application etc. are done with the onset of monsoon rains. In the light of above discussed facts, male agricultural labourers were found to be engaged in operations like ploughing, digging, levelling, bunding, fertilizer application, taking mounds for tapioca, interculturing etc., whereas female labourers were found to be engaged in transplanting, weeding, harvesting, threshing, winnowing, transportation of manures and fertilizers etc.

Agriculture being seasonal and mostly rainfed, the labourers were found to have gained more days of employment in the field of agricultural labour than non-agricultural

labour during these months. During December-January to March-April, there was relatively more unemployment in the field of agriculture and naturally the agricultural labourers go for non-agricultural works to earn their livelihood. Since they were mainly agricultural labourers, they could not go for other works continuously. Male agricultural labourers were found to be engaged in non-agricultural jobs such as head load works, loading or unloading of stones to or from lorry, as helpers in masonry etc. For such jobs, there are workers under specific unions. So the chances for getting such jobs for an agricultural labourer are limited. These circumstances add to the problem of unemployment of agricultural labourers. From this study, it was observed that a male agricultural labourer was unemployed for about six months while a female agricultural labourer was unemployed for about seven months in a year.

Present study also revealed that in an agricultural labour household, other family members also got employment in agricultural field. On an average, in an agricultural labour household there were two members as working force. Majority of the respondents belonged to nuclear families comprising husband, wife and their unmarried children. So in a male labour household, mainly 'other members' include his wife and

children. They were found to have engaged almost equally in both agricultural and non-agricultural labour. Females as they are the house wives, they have to look after their children, cook food for their family and have to attend to other household activities. So they engaged in jobs available in the surrounding areas only. Major children of these families were also found to have engaged mainly in non-agricultural labour. This might be the reason for the above finding.

Similarly, in a female agricultural labour household other family members gained almost equal days of employment in both agricultural and non-agricultural labour. In a female labour household, 'other members' include mainly male members. As they were the male members of the family, they might have engaged in any job available to them. In the agricultural season they might have engaged in agricultural labour also.

Table 2 shows that digging, application of organic manure and fertilizers, basin preparation for coconut, taking mounds for tapioca etc. were the jobs that the male agricultural labourers were mostly engaged. Similarly, the female agricultural labourers were found to be engaged in

transplanting, harvesting, transportation of manure and farm produce, irrigation and weeding. In general it has been considered from years back, that muscle power is more for males as compared to females. Particularly in the field of agricultural labour, there are certain specific works that are reserved for male labourers and certain others for female labourers. It is believed that only male labourers can undertake the hard works such as digging, ploughing, levelling, bund preparation, intercultural operations, taking mounds for tapioca etc. whereas the female labourers are reserved for comparatively lighter jobs such as weeding, harvesting, transplanting etc.

In agriculture, women do not generally undertake all types of jobs, but only specific ones, which the male labourers normally avoid. There observed a tendency towards a system of job-segregation in agricultural labour force. It results in the reservation of high-prestige and high-salaried jobs for male and the low-prestige and low-salaried jobs for females. Among the various crops cultivated in Kerala, paddy is the labour intensive crop which require continuous management right from the beginning till the end when compared to perennial crops. Eventhough paddy crop provides

maximum number of days of employment to the female agricultural labourers as compared to other crops, women labourers are not needed for all operations in paddy cultivation. Their demand is at the peak only during the periods of transplanting, weeding and harvesting. This might be the reason for the results inferred from Table 2.

5.2 Wage Pattern of Agricultural Labourers

From Tables 3 and 4, it was observed that a male agricultural labourer obtained an average daily income of Rs.12.16 and a female agricultural labourer, Rs.8.95, from agricultural labour alone. It was Rs.8.86 and Rs.2.40 respectively the male and female agricultural labourers could earn from non-agricultural works as their average daily income.

According to 1992 revision of Minimum Wages Act 1948 in Kerala wage rates prescribed are as following.

(A) Ordinary agricultural operations

1. Hard working hither to do by men Rs. 40. Ps. 20.

2. Light working hither to do by women Rs. 30.

(Preparing pits or bunds for planting coconut tree will also be treated as an ordinary agricultural operation).

(B) Ploughing

a) Ploughing with the labourer's bullocks for 4 hours working day - Rs. 60.

b) Ploughing with cultivator's bullocks for 4 hours working day - Rs.40 Ps.20.

(C) Transplanting

The wage shall be the same as for an ordinary labour but the working hours shall be 5 for Kayal areas of Kuttanad and 6 for other areas.

(D) The working hours and wage rates of boys and girls between the age of 14-18 years will be 3/4 of the wages for adults, depending upon the work turned out by them.

NB: The hours of work fixed above are hours of actual work ie, excluding time spent in assembling, proceeding to work spot and returning, rest periods etc.

(E) Minimum wage for plucking coconut. Per tree 75 paise + 3 coconut for every 25 trees.

(F) Harvesting and threshing

In Palakkad, the share of the workers shall be 1/7th of the harvested paddy. In other areas the customery

shares shall continue to be paid. "Theerpu" or "Vellamkudy" shall be continued to be paid wherever seen. Workers shall be entitled to remuneration for carrying "Katta" if threshing ground is not provided at a rate of one for every 81 hectares of paddy field.

Present study revealed that in Thiruvananthapuram district, wages for agricultural labourers were paid as cash or kind or as both. It had been noticed that particularly in the case of paddy harvesting, the wage was paid mainly as kind. This was given after harvesting and threshing. Harvesting was mainly done by the women labourers. In certain places, men labourers were also engaged in paddy harvesting. For threshing, the women as well as male labourers were found to be engaged. After threshing and winnowing, the wages in kind were given at the time of measuring the harvested produce.

From this study, it was noticed that in Thiruvananthapuram district, wages for harvesting were paid in kind at the rate of five to eight "Kottu" (കൊറ്റ്) for one "Para land" (പറനിലം). One "Para land" is equal to "14 cents" or "10 Pakka" or "10 Edangazhy". One "Kottu" is equal to "Six Pakka" or "Six Edangazhy". Therefore, for harvesting "One

Para Land" (Paddy in 14 cents), a remuneration of 30 to 48 pakka or 30 to 48 edangazhy grains are given. This is shared among the labourers engaged in harvesting. Usually, for harvesting "one para land", two labourers are needed. The payment as kind for harvesting was found to vary with respect to the distance between the paddy field and the threshing yard. The wage rate will be "five Kottu" if the distance between the paddy field and the threshing yard is 300 to 500 meters. As this distance increases, the wage rate is also found to have increased from five Kottu to eight Kottu.

Wages paid per head per day for other agricultural operations to the agricultural labourers as revealed from the study are presented in Table 6. Results in Table 6 emphasized that in Kerala the labourers are getting the wages much higher than the minimum wages prescribed. This is mainly due to the trade unionism observed among the agricultural labourers of Kerala. It is viewed that the condition of agricultural labourers cannot be improved unless they are organised. Organizations of the agricultural labourers would be essential to protect them from the exploitative forces in the rural scene, to improve the bargaining power and also to act as pressure groups for an efficient delivery of the

benefits of the developmental programmes. Different trade unions are prevalent among agricultural labourers of Kerala, which are organized by the political parties. Kerala State Karshaka Thozhilai Union (KSKTU) is one among them. Trade unionism helped them not only to receive an increased wage for their work, but also to organize other welfare measures too.

Minimum wages are fixed not according to the work done, but according to the basic needs and requirements of people. Eventhough they were obtaining higher wage rates than the minimum wages, their average daily income was low due to the fact that they were not gainfully employed throughout the year. This is in accordance with the findings of Mencher (1980).

The present study revealed that female labourers were getting low income as well as low wage rates as compared to male labourers from agricultural labour. As discussed earlier, the job-segregation observed in the field of agricultural labour might be the main reason for this finding. This result is in tune with the findings of Kuttykrishnan and Suchethakumari (1989).

Table 3 and 4 revealed that the the case of male and female agricultural labourers the average daily income was less from non-agricultural labour than from agricultural labour. This might be due to the fact that the number of days of employment in non-agricultural labour was much lesser than the number of days of employment in agricultural labour. A male agricultural labourer was found to be engaged in non-agricultural works such as head load works, loading or unloading of stones to or from lorry, as helpers in masonry etc. For them, the days of employment from non-agricultural labour was 60 as against the same from agricultural labour (107 days).

A female agricultural labourer was found to have gained some employment opportunities in the non-agricultural labour during the off-season. It was noticed from the present study that the young women were able to do head load of stones and other materials in masonry. In Southern parts of Thiruvananthapuram district, the female agricultural labourers were found to be engaged in stone breaking, pleating coconut leaves etc. in the off seasons. A female engaged in masonry was found to earn Rs. 50-60/- per day whereas from stone breaking or pleating coconut leaves etc., she could obtain only Rs.15-20/- per day. This is because of

the fact that for masonry work, there is fixed wage rate per day irrespective of the quantum of work. But for stone breaking and pleating coconut leaves, the wage will be based on the quantum of work done. The results revealed that a female labourer earn an average daily income of Rs.2.40/- from non-agricultural labour as against an average daily income of Rs.8.95/- from agricultural labour. As a result both male and female labourers were found to have gained more annual income from agricultural labour than from non-agricultural labour.

As compared to non-agricultural field, the wage rate is comparatively less for agricultural labour. But the number of days of employment is less in non-agricultural labour for an agricultural labourer as compared to the same in agricultural labour. This might be the reason for low annual income and low average daily income from non-agricultural labour than the same from agricultural labour.

Table 4 shows that total income from both agricultural and non-agricultural labour was less for female labourers than the male labourers. In agriculture, the wage rates were also found to be lower in the case of female labourers than that of male labourers. As the males are

engaged in more strenuous works, they are paid more. Thus the less days of employment coupled with low wage rates is the reason why females are getting lower annual income from agricultural labour than the males.

In non-agricultural fields, some jobs were paid based on the quantum of work irrespective of the hours of work for females. That is why the total income from non-agricultural labour was less for female labourers when compared to male labourers.

Regarding the income obtained by other members of the family, it was also noticed that the income from non-agricultural field was more than that from agricultural labour. This is because of the fact that, the other members of the agruclutral labour household were found to be engaged mainly in non-agricultural labour for which the wage rates were higher. So the major portion of their income was from non-agricultural labour. During the peak periods of agricultural labour, they were also found to be obtained employment in agricultural labour also.

Table 5 depicts the total income of agricultural labour households. Male labour household was found to have

earned higher income than the female labour household. In a male agricultural labour household, they were mainly engaged in agricultural labour and during the off-seasons they were engaged in any other jobs obtained to them. Other members of their family were mainly females mostly engaged in lighter jobs in agriculture and other fields. But in a female agricultural labour household, they were mainly agricultural labourers who were found to be engaged in some other jobs in the off season. Other members of these households were often males who were found to be engaged mostly in non-agricultural labour. During the agricultural season they were found to be engaged in agricultural labour also. So the major portion of the total income earned by a female labour household was that earned by their male members from agricultural as well as non-agricultural field. This might be the reason for the results depicted in Table 5.

5.3 Preference of work by agricultural labourers

Preference of work by agricultural labourers towards various agricultural operations with respect to the cultivation of major crops of Kerala were depicted in Table 7 to 11. The reasons for the differential preference are discussed here.

Majority of male agricultural labourers placed highest preference to operations such as ploughing, digging, levelling, land preparation, basin preparation, taking pits for banana, taking mounds for tapioca etc. Reasons attributed by them are;

1. as they belonged to young age group, they possessed the strength and stamina to carry out these jobs.

2. by doing these jobs, they could earn more income.

Few male labourers of old age placed less preference/non-preference to such jobs and the reason attributed to this opinion was their poor health.

Irrigation in vegetable and banana cultivation was also preferred most by majority of male labourers, than the irrigation in other crops. The reason they opined for this is that when compared to other crops, by irrigation of banana and vegetables they would get continuous or daily work as these crops require good irrigation management.

Next preference was given to the application of manures and fertilizers, transportation works etc. These are also the works assigned to male labourers often associated with land preparation.

Comparatively least preference was given to spraying plant protection chemicals except in the case of vegetables. The reason attributed to the less preference was the risk involved in this operation. It was perceived as injurious to health by most of the labourers. One should be very careful in handling these poisonous chemicals. In the case of vegetables, mainly plant protection was done by resorting to hand removal and mostly by using less poisonous chemicals. Regarding coconut, least preference was given to plant protection. For spraying plant protection chemicals in the case of coconut trees, one has to climb upon the palm and often this work is done by coconut climbers. This is the reason pointed out by labourers for their non-preference of this work.

Works such as sowing or planting, threshing of harvested paddy, irrigation, weeding, preparation of setts, preparation of suckers etc. were ranked as the least preferred jobs. They are comparatively lighter works as far as male labourers are concerned and wage rates for these works are less as compared to other hard works usually performed by male agricultural labourers. These are the reasons for less preference given to these works.

Transplanting of paddy seedlings was the job ranked first by majority of female labourers. This is the work demanding more labour. In Kerala, transplanting is normally done by female labourers only. Since transplanting cannot be spread over a longer period, there is a great demand for women labourers during this short period. For a women agricultural labourer, this is the work providing maximum days of employment. That is why they preferred this job.

Weeding of paddy fields was found to be the next most preferred job. Before the crop matures, a couple of weedings are needed and this also gives some employment opportunities to the female labourers. Eventhough weeding is a less paid work, they get continuous employment for some period and hence they preferred this job.

Harvesting was preferred by less number of labourers when compared to transplanting. Harvesting is a coveted job and is paid for in kind. As it is paid for in kind, that may be sufficient for their use in the house. This job also provided continuous periods of employment during the harvesting season. This is the reason for preference expressed by them.

Threshing, winnowing and transportation of harvested produce etc. are the jobs often associated with harvesting of paddy. Mostly these operations are carried out by the same group of labourers engaged in it. That is why they preferred these jobs.

Comparatively less number of female labourers interviewed were found to be engaged in works related to the cultivation of other crops. Among the various jobs, they preferred irrigation of vegetable crops, weeding, sowing/planting etc. because these were the jobs often avoided by the male labourers as they are less strenuous.

Transportation of organic manure, fertilizers, harvested produce etc. were preferred only by less number of young female labourers. Non-preference by other labourers towards these jobs was due to their poor health. Moreover these works were often done by male labourers and hence the chances for getting such jobs to the female labourers are less.

Plant protection was the least preferred job as it is a dangerous job as opined by them. Only a few labourers were found to be engaged in manual plant protection in vegetable crops.

In general, male labourers preferred strenuous works while female labourers preferred light works. The male labourers are reserved for certain specific jobs which require strength and stamina. So generally these are all the works obtained by a male labourers. They provide more income also. A male agricultural labourer who is engaged in ploughing, digging, intercultural operations etc. earns a wage rate of Rs.50/- to Rs.60/- per day whereas one engaged in irrigating banana or transplanting paddy gets only Rs.35/- per day.

With respect to the female agricultural labourers, it is believed that they are not able to do hard works as these works require more strength and stamina. They are often engaged in transplanting, weeding and harvesting of paddy. In general, female labourers are asked to do the above said jobs as other hard works are reserved for male labourers. Poor health of the female labourers was the main reason for not getting the hard works for them. Few female respondents of young age groups were of opinion that they were getting the job of transportation of manures to the field. In such cases, they obtained Rs.50/- per day. The wages for transplanting, weeding, harvesting etc. are low when compared to the

transportation of manures. From transplanting, weeding etc. they could earn Rs.35/- only per day. Eventhough the wage was less for this jobs, they provided maximum number of days of employment for a female agricultural labourer, during peak periods. It is evident from Table 2 that the female agricultural labourers obtained 21 and 19 days of employment in transplanting, and harvesting respectively.

5.4 Distribution of agricultural labourers based on their socio-economic and psychological characteristics

Data on categorisation of respondents, viz. male agricultural labourers and female agricultural labourers and the frequency and percentage distribution under each group are presented in Table 12 and 13 respectively. Different socio-economic and psychological characteristics of the labourers were studied, analysed and results were presented in these tables.

Regarding the age, it was observed that majority of agricultural labourers belonged to the age group below 45 years. It is inferred from this result that mostly the young people are engaged in agricultural labour rather than aged people. This result is in conformity with the findings obtained by Dipali (1979), Padmanabhan (1981), Halim and Mc

Carthy (1983), Ingle and Dharmadhikarj (1987) and Shilaja (1990).

The data regarding caste show that majority of male and female agricultural labourers studied belong to scheduled castes and scheduled tribes. The present finding is in line with that observed by Dipali (1979), Panikar (1979), Chauhan (1983), Ingle and Dharmadhikarj (1987) Nancharaiah (1989), Ramachandran (1990) and Shilaja (1990). In India caste system 'Chathurvarnya' was developed based on the occupation of different races. It was believed that only low caste Hindus were engaged in agricultural labour. In the present period also, it is believed that agricultural labour is reserved for low caste people. Present study revealed that 8.33 per cent of male respondents and 10 per cent of female respondents were from forward castes. This result was supported by the previous findings of Nakamura (1982) and Rao (1984) that when castes lose the tools and techniques of their traditional occupations, they tend to become agricultural labourers. Social status of the agricultural labourers is low. This might be the season for the high caste people to hesitate to do agricultural labour. From the present study, it was noticed that in Thiruvananthapuram district, among the

scheduled castes, the caste "Pulaya" was mostly engaged in agricultural labour.

With respect to religion, mainly Hindus were found to be engaged in agricultural labour. Very little proportion of respondents were from Christian religion. But it was noticed that in both sex categories, there were no respondents belonging to Muslim religion. From this result it is evident that Muslims are less involved in agricultural labour as compared to Hindus and Christians. It is in tune with the result obtained by Panikar (1979). In Thiruvananthapuram district, Muslims are found to be engaged in trade, business activities and self employment avenues when compared to other religions.

While studying family type it was observed that majority were nuclear families. As majority of respondents of the present study belonged to young age group, they get married and live separately from joint families. In Kerala, generally, it is a trend that nuclear families are get separated from joint families and live separately. This might be the reason for the larger proportion of nuclear families among the agricultural labour families studied.

With respect to family size, majority were in low group, which means that the total number of family members of an agricultural labourer was less than five. Same result was observed by Dipali (1979) and Ingle and Dharmadhikarj (1987). Many of the respondents in the present study belonged to the age group below 45 years and these families are with husband, wife and their unmarried children dependent on the parents. In Kerala, family planning programme has achieved its target. Primary health centres as well as Mother and child care centres functioning at panchayat level take active roles in family planning programmes. As a result of this, in Kerala, majority of families are small families with husband, wife and their two or three children. This is the reason for the large proportion of respondents falling within the low group of family size.

In the case of family income, majority were in the low income group. Because of the seasonal nature of agriculture, which is mostly rainfed, the agricultural labourers will not get continuous employment throughout the year. As a result they will not get continuous income from agricultural labour throughout the year. Being agricultural labour as their main occupation, they get the income from this only during a specific season. Subsidiary occupations of

these labourers include farming, poultry rearing, cattle rearing and other non-agricultural activities. Being the lowest occupants of the social rung, the scope for self employment is very little for these agricultural labourers. This might be the reason for the larger proportion of respondents falling in the low family income group.

With respect to indebtedness, majority of respondents were in the low group. From the present study, it was observed that the agricultural labourers borrowed money for the purchase of cattle, construction of house etc. Abolition of bonded labour and organized nature of agricultural labourers lead to their increased bargaining capacity. Thus they are obtaining higher wage rates also. Moreover the agricultural labourers are aware about the loans and other financial assistance obtained to them from banks, co-operative societies etc. This will protect them from the exploitation of private money lenders. Moreover due to the small family size their expenditure will be less. That is why majority of agricultural labourers were with low indebtedness as evidenced from the present study.

Regarding experience, majority of agricultural labourers were with an experience upto 25 years (63.33 per

cent males and 53.33 per cent females). Majority of the respondents of the present study were below 45 years of age. So it is inferred that they have accepted agricultural labour as their main occupation from their early twenties. Majority of male labourers were with higher education, upto high school level. After completing their education, they might be in search of some employment opportunities and after that they might be engaged in agricultural labour. In the case of female labourers, comparatively more respondents were with an experience above 25 years as compared to male labourers. The females labourers were mainly illiterate or functionally literate. On the other hand they might be engaged in agricultural labour little earlier than the male labourers. This might be the reason for the findings regarding the experience.

With respect to education, majority of male labourers were in the high education group whereas majority of female labourers were with low education. The agricultural labourers are with low social and economic status. While parents go out for work, the elder children have to carry out domestic works. This trend is continuing even today also, especially in families with low social and economic status.

The girls when compared to boys in the agricultural labour families are the victims of this situation. In the case of majority of poor families of Kerala, it is believed that males are the earning members of the family and they get good attention with respect to food and education as compared to females. So it is usually the boys will get chances to go to schools. Even if the girls go to schools, 'dropouts' will be more among the girl students. This might be the reason for the larger proportion of women labourers categorised under the low education group. Results of the present study reinforces the previous results observed by Sharma and Singh (1970), Dipali (1979), Ingle and Dharmadhikarj (1987), Kaur and Sharma (1988) Kanwar and Koranne (1989) and Shilaja (1990).

Regarding socio-political participation, 66.67 per cent of male respondents were having high socio-political participation whereas 60 per cent of females were having less socio-political participation. As the male labourers are educated, their socio-political participation will be more. Illiterate or functionally literate women naturally will possess low socio-political participation. Generally political participation is less among females in Kerala. Leaders or active workers in politics are less particularly

among female agricultural labourers. Women have got multiple roles in such societies. After their work in the agricultural fields from dawn to dusk, they have to take care of household activities also. So they will not get much time to participate in Socio-political activities. Moreover politics cannot be considered as an earning work. This might be the reason for the less socio-political participation by female labourers.

From the present study it is revealed that female labourers were with low socio-economic status whereas the male labourers were with high socio-economic status. The male labourers are educated and with high socio-political participation. They are also getting better wage rates as well as more days of employment as compared to the female labourers. On the other hand, the female labourers are mostly illiterate or functionally literate with low socio-political participation. Their wage rate as well as days of employment are also less. This might be the reason for the higher socio-economic status of male labourers than the females as evidenced from the present study. This result is supportive to the previous result obtained by Ray et al. (1985).

Regarding cosmopoliteness, nearly two-third of both male and female respondents were having better cosmopoliteness. As the male labourers are with higher education, high socio-political participation and high socio-economic status, they will be more externally oriented. In Kerala, it is a trend that female members have to take care of their household activities. Male members are considered as the earning members and it is the duty of the females to use these money among various household requirements. This is also true in the case of an agricultural labour household. So the women have to go out for the purchase of household items, food, clothings, medicines etc. The women labourers have to visit the nearest town frequently for various personal or domestic purposes.

Mass media participation was low for female labourers and high for male labourers as revealed from the present study. The male respondents were with high education, high socio-political participation and high cosmopoliteness. As a person is educated, he will be exposed to new ways and possibilities of living. An educated person will use more information sources. This is the reason for the high mass media participation of male agricultural labourers. On the other hand, female labourers were mostly illiterate or

functionally literate and they were having low socio-political participation. Their low educational status prevent them from reading newspaper, magazines, leaflets, bulletins etc. After the work from dawn to dusk, once they returned to home, they will engage in household activities and thus their chances for listening to radio or watching television are very meagre. This might be the reason for low mass media participation of female agricultural labourers.

With respect to the level of aspiration, majority of both sexes were found to have high level of past and present aspirations. As they have passed their past life, they might not be worried about it. As majority of the respondents were below 45 years of age group, they can do their work in an efficient way at present and this might be the reason for high level of aspiration related to the present life. But regarding the future level of aspiration, majority of male labourers had high level of aspiration, while majority of female labourers had low level of aspiration. High education, high socio-political participation, high cosmopoliteness, high mass media participation and high attitude towards scientific agriculture of male labourers might be the reason for their

high level of future aspiration. Majority of female respondents were of below 45 years of age. As they get aged, they are not confident about their future life. They are not sure that they will get more employment opportunities and more income in future life time. This in combination with other factors such as low educational level, low socio-political participation, low socio-economic status and low mass media participation might be the reasons for the low level of future aspiration of female labourers.

Results from this study revealed that majority of male agricultural labourers were with high achievement motivation while majority of female labourers had low achievement motivation. Male labourers are more confident than the females as they have high education, high socio-political participation, high mass media participation, high cosmopoliteness etc. This might be the reason for the high achievement motivation of male labourers. On contrary to this, low educational status, low socio-political participation, low socio-economic status, low mass media participation and low level of future aspiration might have been the reasons for the low achievement motivation of female labourers.

Regarding attitude towards scientific agriculture, majority (56.67 per cent) of male labourers were with higher attitude whereas 60 per cent of female labourers had low attitude. As the male respondents are having higher education, and high mass media participation, this will lead them to better contact of socio-political organizations and with new information sources. This will improve their knowledge level and once they have got knowledge about scientific agriculture and its good effects, they will develop a favourable attitude towards it. This is the reason for the higher attitude of male labourers towards scientific agriculture. On the other hand, low education, low mass media participation and low socio-political participation of female respondents lead to low knowledge about scientific agriculture and hence they have developed a low attitude towards scientific agriculture.

With respect to the attitude towards agricultural labour, majority of female labourers and 50 per cent of male labourers were in the low group. This finding is contrary with the result observed by Padmanabhan (1981). Agricultural operations are seasonal in nature which will result in seasonal availability of employment opportunities for the agricultural labourer. Hence they will remain unemployed for

about 4 to 5 months in a year. Moreover the income earned by them from agricultural labour alone is insufficient to meet the both ends of their life together. Eventhough they are obtaining higher wage rates, the total number of days employed are less. In addition to these factors, the agricultural labourers are having low social status, mostly illiterates, poor and often live in huts or thatched sheds. They think themselves to be the lowest occupants of the social system. This might be the reason for the low attitude towards agricultural labour.

While studying the participation of agricultural labourers in decision making, it was observed that male labourers were in the high group whereas female labourers were in the low group. As already discussed, male labourers had higher level of education, more knowledge about farming, favourable attitude towards scientific agriculture, as compared to female labourers. Because of these reasons, male labourers are mostly involved in the decision making process with the cultivator or farmer than the female labourers. This finding supports the previous findings by Padmanabhan (1981) and Shilaja (1990).

Regarding knowledge in farming, majority of both male and female labourers were found to have more knowledge. Higher education, high mass media participation, high cosmopoliteness, high attitude towards scientific agriculture etc. of the male labourers might have been contributed for this observation. Eventhough the female labourers were with low education, low mass media participation and low attitude towards scientific agriculture, they were working in the field of agriculture for about 25 years. Thus they have acquired their knowledge through their experience.

With respect to the knowledge about improved farm implements, both male and female labourers were found to have low knowledge. These labourers were found to be worked in the fields where manual labour was utilized. In Thiruvananthapuram district, most of the cultivators are having small sized holdings which will prevent the use of improved farm implements. As the utilization of such implements is less, the knowledge about the same is also less. While studying the work preference, it was noticed that majority of labourers preferred the plant protection as the least item. Their knowledge about the plant protection equipments and its safe handling is very less. Moreover these agricultural labourers are not getting any training regarding

the use of such improved agricultural implements. This might be the reason for their low knowledge level about the improved farm implements.

5.5 Comparison between male and female agricultural labourers with respect to their socio-economic and psychological characteristics

Results from Table 14 showed that there is significant difference between the male and the female labourers with respect to their socio-economic and psychological characteristics such as education, socio-political participation, socio-economic status, cosmopoliteness, mass media participation, level of aspiration (present and future), achievement motivation, attitude towards scientific agriculture, participation in decision making, knowledge in farming and knowledge about improved farm implements.

As the mean scores of all characteristics of male labourers except for attitude towards agricultural labour were found higher, they were considered to be superior over the female labourers. The difference between the mean scores of male and female agricultural labourers regarding attitude

towards agricultural labour, was 0.01 only and hence much superiority could not be attributed to the female respondents with respect to this characteristic.

As discussed in the early parts of this chapter, under the distribution of agricultural labourers based on their socio-economic and psychological characteristics, the male respondents obtained higher scores than the female respondents with respect to their education, socio-political participation, socio-economic status, cosmopoliteness, mass media participation, level of aspiration, achievement motivation, attitude towards scientific agriculture, participation in decision making, knowledge in farming and knowledge about improved farm implements. The reasons attributed to the high scores of male respondents are applicable here also to explain their superiority over the female respondents.

SUMMARY

CHAPTER VI

SUMMARY

Agriculture and allied occupations are the main stay of majority of people of Kerala. Eventhough we are having plentiful resources for agricultural production, we could not achieve much progress in agricultural scene. Several reasons are there for this failure. A cordial relationship between farmers and agricultural labourers is a pre-requisite for the development of agriculture. Agricultural labour is one of the most important factors in a production function. But they are the weakest section in the society and their problem is a large measure of unemployment. Moreover their daily income is very little to meet the day to day expenditure. The present study aimed at the analysis of employment and wage pattern and the differential preference by agricultural labourers towards various agricultural operations with the following specific objectives.

1. To analyse the employment pattern of agricultural labourers of Thiruvananthapuram district.

2. To analyse the wage pattern of agricultural labourers of Thiruvananthapuram district.

3. To study the differential preference by agricultural labourers towards various agricultural operations and to analyse the reasons for preference or non-preference.

4. To study the socio-economic and psychological profile of agricultural labourers.

5. To suggest ways and means for equitable distribution of employment and income throughout the year.

The study was carried out in Thiruvananthapuram district of Kerala. A random sample of 10 panchayats were selected. From each panchayat selected, 12 agricultural labourers were selected randomly, thus forming a sample size of '120', with equal distribution in both the sex categories. One third of the sample was kept as sub-sample for the study of employment and wage pattern. For this, out of 10 selected panchayats, four were selected at random and 10 respondents each were drawn thus forming a sub-sample of '40'.

A detailed review of literature was made, based on which different variables were selected for the study. Employment and wage patterns were studied from the sub-sample

by keeping a register with each respondent and the same was verified at fortnightly intervals for one year from September 1992 to August 1993. Then the month-wise employment pattern, total number of days engaged by male and female agricultural labourers, wage pattern etc. were analysed. Differential preference of work was studied directly from each respondents, for which they were asked to rank the operations in the cultivation of major crops of Kerala based on their preference in a continuum ranging from 'most preferred' to 'least preferred'. They were also asked to give the reasons for preference or non-preference.

Profile characteristics studied were age, sex, caste, religion, family type, family size, family income, experience, socio-economic status, cosmopoliteness, mass media participation, indebtedness, level of aspiration, achievement motivation, attitude towards scientific agriculture, attitude towards agricultural labour, participation in decision making, knowledge in farming and knowledge about improved farm implements.

An attitude scale was developed to quantify the attitude of the respondents towards agricultural labour using equal appearing interval method as described by Thurstone and

Chave (1929). With respect to other variables, either schedules developed for the purpose or adopted scales were used to measure them.

The data regarding the employment and wage pattern were collected during September 1992 to August 1993, from the sub-sample respondents with the help of a special schedule. Personal interview was conducted using a well structured and pre-tested interview schedule to collect other data from the sample. The collected data were tabulated and analysed using appropriate statistical tests like frequency and percentage, mean, Mann-Whitney -U test etc. to derive results. The salient findings of the study are succintly presented below.

Employment pattern

(1) During the months from May to October, there was more employment for agricultural labourers. From December-January to March-April, employment opportunities were comparatively less.

(2) Total number of days of employment for a male agricultural labourer during the period of one year was 167 days - 107 days in agricultural labour and 60 days in non-agricultural labour.

(3) Female agricultural labourers were found to get employment for 141 days during the period of one year. Of this, 104 days was in agricultural labour and 37 days was in non-agricultural labour.

(4) Other family members of a male agricultural labour household got almost equal days of employment in both agricultural and non-agricultural fields.

(5) Other family members of a female agricultural labour household also obtained almost equal days of employment in both agricultural and non-agricultural fields.

(6) The works mostly engaged by the male agricultural labourers were digging, application of organic manure and fertilizers, basin preparation for coconut, taking mounds for tapioca etc.

(7) The works mostly attended by the female agricultural labourers were transplanting, harvesting, transportation of manure and farm produce, weeding etc.

Wage pattern

(1) A male agricultural labourer was earning an average daily income of Rs.12.16 from agricultural labour and

Rs.8.86 from non-agricultural works.

(2) A female agricultural labourer had earned an average daily income of Rs.8.95 from agricultural labour and Rs.2.40 from non-agricultural works.

(3) In a male agricultural labour household, about 53 per cent of the total annual income was from agricultural labour and about 47 per cent was from non-agricultural labour.

(4) In a female agricultural labour household, about 55.5 per cent of the total annual income was from agricultural labour and 44.5 per cent was from non-agricultural labour.

(5) Average annual income per agricultural labour household was Rs. 11382.20

Preference towards various works

(1) Male agricultural labourers preferred more strenuous works such as ploughing, digging, levelling, basin preparation, taking pits or mounds etc. as they possess strength and stamina for doing these operations. Moreover, these are the jobs paid more as compared to other works.

(2) Non-preference towards these strenuous operations by some old people were due to their poor health.

(3) Irrigation of banana and vegetables was preferred as it provided continuous days of employment.

(4) Application of manures and fertilizers was preferred as it was often associated with land preparation.

(5) Least preference was given to plant protection as it involves risk of health. Non preference of plant protection of coconut palms was due to the reason that it is often done by coconut climbers.

(6) Sowing or planting, threshing, irrigation, weeding, preparation of sets, preparation of suckers etc. were least preferred as they fetch only low wage rates.

(7) Female agricultural labourers preferred the operations such as transplanting, weeding and harvesting of paddy most as these jobs provided them the maximum number of days of employment during the season.

(8) Threshing, winnowing and transportation of harvested produce are the works often associated with harvesting and hence these were ranked as next most preferred works.

Profile characteristics

(1) Majority of agricultural labourers were below 45 years of age.

(2) Majority of agricultural labourers belonged to scheduled castes.

(3) 95 per cent of agricultural labourers were Hindus.

(4) Majority of agricultural labourers were from nuclear families and were having small families with less than five members.

(5) Nearly two-third of agricultural labourers in both male and female categories had family income below Rs. 10,000/- per year.

(6) Indebtedness was less in the case of both sexes.

(7) Majority of agricultural labourers had an experience upto 25 years.

(8) Majority of male agricultural labourers had secondary or high school education whereas majority of female agricultural labourers were illiterates or functionally literates.

(9) Majority of male agricultural labourers had high socio-political participation while that of female agricultural labourers were found to be low.

(10) Nearly half of the male agricultural labourers were found to have high socio-economic status, whereas half of the female agricultural labourers had only low socio-economic status.

(11) More than half of the agricultural labourers had high cosmopoliteness.

(12) More than 50 per cent of the male agricultural labourers were found to have high mass media participation whereas more than half of the female agricultural labourers had only low mass media participation.

(13) Majority of agricultural labourers had high level of aspiration (past and present). More than 50 per cent of male agricultural labourers had high level of future aspiration whereas more than two-third of female agricultural labourers had low level of future aspiration.

(14) 56.67 per cent of male agricultural labourers had high achievement motivation while 60 per cent of female agricultural labourers had only low achievement motivation.

(15) More than half of the male agricultural labourers had high attitude towards scientific agriculture and agricultural labour whereas more than half of the female agricultural labourers had only low attitude towards both scientific agriculture and agricultural labour.

(16) Majority of male agricultural labourers had high participation in decision making whereas participation in decision making is very low in the case of female agricultural labourers.

(17) Nearly half of both male and female agricultural labourers had high level of knowledge in farming but knowledge about improved farm implements was very poor in both cases.

(18) There was significant difference between male and female agricultural labourers with respect to their socio-political participation, socio-economic status, cosmopoliteness, mass media participation, level of

aspiration (present and future), achievement motivation, attitude towards scientific agriculture, participation in decision making, knowledge in farming and knowledge about improved farm implements.

Implications of the findings of the study

The findings of the study indicate that agricultural labourers were unemployed for six to seven months in a year. Their wage rates for agricultural labour was less when compared to the wage rates for non-agricultural works. Eventhough the wage rate for agricultural labour was more than the minimum wages fixed, because of limited number of employment days, their annual income was less. So adequate steps are to be taken for the equitable distribution of employment and income throughout the year for the agricultural labourers. The average daily income of agricultural labourers was found to be too little to meet the daily expenditure. This situation was developed because of the increasing unemployment and underemployment. This calls for rapid development of small and cottage industries in rural areas to provide additional employment to supplement the income of labourers.

Findings regarding the preference or non-preference of work indicate that some jobs were preferred as it does not provide sufficient income, or due to poor health, or due to its risky nature. So adequate measures should be undertaken to overcome these factors. Job segregation in the field of agriculture should be abolished which will avoid the reservation of high-prestiged and high-paid jobs to male labourers and low-prestiged and low-paid jobs to female labourers. This will prevent the wage difference between the males and females. While fixing minimum wages, it must provide not merely for the bare sustenance of life, but also for the preservation of the efficiency of the workers. For this purpose, the minimum wage must also provide for some measure of education, medical care and amenities. They should be given proper training in the use of plant protection equipments and chemicals properly so that they could be able to do these operations efficiently and without affecting their health.

Study also revealed that the agricultural labourers had low family income, low attitude towards agricultural labour and low level of knowledge about improved farm implements. Female labourers were found to have low education, low socio-political participation, low socio-

economic status, low mass media participation, low level of future aspiration, low achievement motivation, low attitude towards scientific agriculture and low participation in decision making. So steps are to be taken to improve the socio-economic and physchological conditions of agricultural labourers. Otherwise they will remain as the lowest occupants in the social ladder.

SUGGESTIONS FOR EQUITABLE DISTRIBUTION OF EMPLOYMENT AND INCOME TO AGRICULTURAL LABOURERS

As a section of village community, the economic conditions of agricultural labourers depend mostly upon the state of prosperity in agricultural economy, which is only possible by substantially increasing agricultural production through extension of irrigation, intensive cultivation and improvements in agricultural practices. This measure will naturally help in increasing rural employment opportunities and simultaneously provide enhanced income to agricultural labourers.

Cropping pattern should be adjusted so that there will be continuous demand for agricultural labour. Intensive cropping will result in heavy demand for agricultural labour.

Intensive development of village and small industries, agro-based processing units and labour co-operatives will also help in expanding work opportunities within the rural economy.

The government agencies entrusted with labour welfare should take active interest in enforcing the provisions of various labour legislations in the agricultural sector.

Resettlement of landless agricultural labourers should also be considered. Legislative measures like provision of house sites in villages to agricultural labourers, supply of cheap materials for the construction of their houses are worth considering to improve their standard of living.

Government should provide financial help to the agricultural labourers to undertake self employment programmes so that they could earn an additional income from it.

Proper training should be given to these labourers in various aspects, especially in plant protection, so that they could carry out their works in an efficient manner.

Incentives should be given to the most efficient agricultural labourer and they should be socially respected.

Suggestions for future research

This study was limited to only one district with a restricted sample size and therefore, generalization of results for the whole state is not possible. So the present investigation can be elaborated along the following lines of research work in future.

1) Similar studies are to be conducted in other districts also to cover the whole state and to facilitate generalization.

2) Include farmers also as respondents and study their attitude towards these agricultural labourers and whether they are facing the problem of unavailability of labourers during any season and if possible analyse the reasons as viewed by them.

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APPENDICES

APPENDIX I

KERALA AGRICULTURAL UNIVERSITY

COLLEGE OF AGRICULTURE, VELLAYANI

"DIFFERENTIAL PREFERENCE OF WORK BY AGRICULTURAL LABOURERS AND THEIR EMPLOYMENT AND WAGE PATTERN IN THIRUVANANTHAPURAM DISTRICT"

INTERVIEW SCHEDULE

PART A

Serial number	:	
Name of respondent	:	
Address of the respondent	:	
Name of village	:	
Panchayat	:	
Taluk	:	
1. Age	:	Years
2. Sex	:	Male/Female
3. Caste	:	Forward/Backward/SC/ST
4. Religion	:	Hindu/Christian/Muslim
5. Family type	:	Single/Nuclear/Joint
6. Family size	:	> 5 members/$\leq$ 5 members

7. Details of family members :

Sl. No.	Name	Age (Yrs.)	Relation with the Respondent	Educational status	Occupation Main	Occupation Sub.	Income/ Month (Rs.) Main	Income/ Month (Rs.) Sub

8. Experience in Agricultural labour :

Sl. No.	No. of years
1.	1-5
2.	6-10
3.	11-15
4.	16-20
5.	21-25
6.	26-30
7.	31-35
8.	36-40
9.	> 40

9. Socio-economic status :

a) Education

Illiterate

Functionally literate

Primary School

Secondary School

High school

b) Occupation :

Agricultural labour as the sole occupation.

Agricultural labour as main occupation with some others as subsidiary

c) Land holding

No land

Less than 10 cents

10 cents or more

d) Annual income

1. From occupation main : Rs.

sub : Rs.

2. From land : Rs.

e) Material possession

I. Implements and Farm power	:	Number
1. Iron plough	:	
2. Wooden plough	:	
3. Mammatti	:	
4. Pickaxe	:	
5. Sprayer	:	
6. Others (specify)	:	
II. Livestock	:	
1. Bullock	:	
2. Cow	:	
3. Buffalo	:	
4. Goat	:	
5. Poultry	:	

III. Other material possession :

1. Cycle :
2. Radio :
3. Tape recorder :
4. Watches :
5. Chair :
6. Cot :
7. Almirah :
8. Fan :

f) Socio-political participation :

Whether belonging to any socio-political organisations ?

Yes/No

If yes,

Member/official participation

g) House :

Shed thatched

Mud wall and tiled

Brick wall and tiled

Concrete house

Electrified

Not electrified

10. Cosmopoliteness

i. Frequency of visit to nearest town

Two times or more per week

Once in a week

Once in 15 days

Once in a month

Seldom

Never

ii. Purpose of visit

All relating to Agriculture

Some relating to Agriculture

Personal/Domestic

Entertainment

Others

No response

iii. Membership in organisations outside the village

Member

No membership

11. Mass Media participation

Sl. No.	Types of mass media	Yes/ No	If yes, the frequency Daily	Once in a week	Twice in a week	Once in a month	Rarely
1.	Do you read news paper						
a.	Agrl. news						
b.	Others						
2.	Do you listen to radio ?						
a.	Agrl. news						
b.	Others						
3.	Do you watch Television ?						
a.	Agrl. news						
b.	Others						
4.	Do you read magazines, leaflets, bulletins etc. ?	Yes/No	Regularly				Rarely
5.	Do you go for flims ?	Yes/No	Once in a week		Once in a month		Once in an year
6.	Do you participate in field days, agrl. functions etc.	Yes/No	Regularly				Rarely

12. **Indebtedness :**

Have you borrowed money for any purpose ? Yes/No

If yes,

Sl. No.	Source	Purpose of borrowing	Amount borrowed Rs.	Amount outstanding Rs.	Rate of interest
1.	Pvt. individuals				
2.	Pvt. banks				
3.	Co-op. Societies				
4.	Others				

13. **Level of Aspiration :**

All of us want certain things out of life. If you imagine your future as an agricultural labourer in the best possible way, what your life look like than if you are to be happy.

What are you hopes for the future ?

a)

b)

c)

d)

On the contrary, if you imagine your future in the worst possible light what would your life look like.

What are your worries and fears for the future ?

a)

b)

c)

d)

How do you feel your present life ?

Much Better Better Neutral Tiresome Much tiresome

How would be your life after five years ?

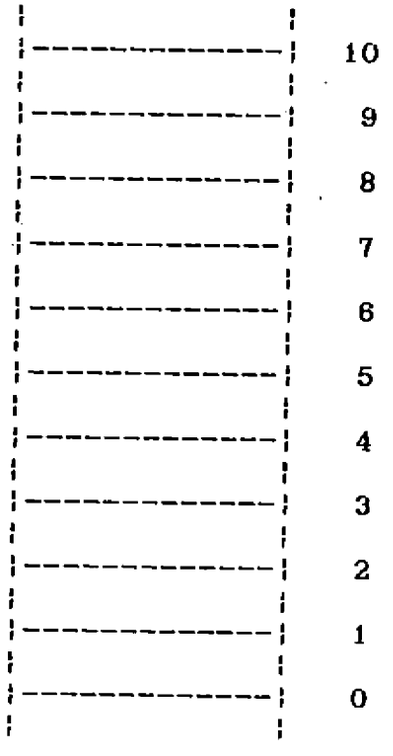
Much Better Better Neutral Tiresome Much tiresome

Here is a picture of ladder. Suppose we say that the top of the ladder represents the best possible life for you and the bottom represents the worst possible life for you.

In the light of your hopes and fears for the future where on the ladder do you feel you personally stand at step no. ------

Where on the ladder you think you would be five years from now step no. ---------

Where on the ladder you think you were five years before at step no._____



14. Achievement motivation :

Please indicate the degree of agreement by making a tick (\/) mark against each statement in the appropriate column.

SA - Strongly agree

A - Agree

UD - Undecided

DA - Disagree

SDA - Strongly disagree

Sl. No.	Statements	SA	A	UD	DA	SDA
1.	One should enjoy work as much as play					
2.	One should work like a slave at everything; one undertakes unless he is satisfied with a result					
3.	One should succeed in his occupation even if one has been neglectful of his family					
4.	One should have determination and driving ambition to achieve certain things in life even if these qualities make one unpopular					
5.	Work should come first even if one cannot get rest					
6.	Even when one's interests are in danger, he should concentrate on his job and forget his obligation to others					
7.	One should get difficult goals for oneself and try to reach them					

15. Attitude towards scientific agriculture :

Some statements about scientific agriculture are given below. Indicate your agreement or disagreement to these statements.

SA - Strongly agree

A - Agree

UD - Undecided

DA - Disagree

SDA - Strongly disagree

Sl. No.	Statements	SA	A	UD	DA	SDA
1.	Every farmer should accept the recommended scientific practices for cultivation of crops					
2.	Scientific cultivation spoils structure and fertility status of soil					
3.	Only scientific agriculture can bring prosperity to our nation					
4.	It is very difficult to adopt scientific cultivation by an ordinary farmer					
5.	It will be possible to solve our food problem if all the farmers adopt scientific cultivation					

16. Attitude towards agricultural labour :

Some statements about scientific agriculture are given below. Indicate your agreement or disagreement to these statements.

Sl. No.	Statements	Agree	Disagree
1.	Agricultural labour is one of the best jobs that I can get in any circumstances		
2.	I feel much pride in doing agricultural labour		
3.	Agricultural labour is merely a waste of energy		
4.	I like very much to do agricultural labour		
5.	Agricultural labour gives pleasure and keeps one in good health		
6.	Those who accept agricultural labour as their occupation are wasting their life		
7.	Being an agricultural labourer, I have to work from dawn to dusk		
8.	Agricultural labour is a very difficult task		
9.	I like this job as it provides employment opportunities to illiterate people also		
10.	Agricultural labourers pave way to better economic condition of our country		
11.	Without agricultural labourers, there will not be any agricultural production		

12. Agricultural labour is a dull occupation

13. Nobody likes to become an agricultural labourer, as an agricultural labourer has only a very low social status

14. No one prefers to be an agricultural labourer as it being the least promising job

15. Agricultural labour is the hope for the growing population of our country

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17. Participation in Decision-making :

Following are some statements showing decision-making situations. Give your extent of participation.

Sl. No.	Statements	Most often	Some-times	Never
1.	The farmer asks me when to start the agricultural operations in the season			
2.	He asks me how many labourers are to be engaged to do each operation.			
3.	He asks me which variety needs and seedlings are to be planted			
4.	He asks me which fertilizer should be purchased, the quantity to be purchased, from where it should be purchased and how it should be brought from there			
5.	He asks me similar questions when plant protection measures are to be taken			

6. He asks me when the crop should be harvested

7. He enquires to me where the produce should be sold, how it should be sold and at what price

8. I use to help the farmer by giving my opinion

9. The farmer gives due weight to my opinion

10. The farmer does not like to ask any opinion

11. The farmer use to find fault with my opinion

12. The farmer permits me to do the agricultural operations according to my opinion

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18. Knowledge in farming :

Can you say,

a) To which crop, each of the following variety belongs ?

1.	Triveni	(T/F)	6.	Grosmichel	(T/F)
2.	T x D	(T/F)	7.	Lakshaganga	(T/F)
3.	Annapoorna	(T/F)	8.	Bharathi	(T/F)
4.	Sakthi	(T/F)	9.	Priya	(T/F)
5.	Jwalamukhi	(T/F)	10.	Ambili	(T/F)

b) Which of the following chemicals are pesticides and which are fungicides

1.	Bordeaux mixture	(T/F)	6.	Kerosene emulsion	(T/F)
2.	Ekalux	(T/F)	7.	Malathion	(T/F)
3.	Dimecron	(T/F)	8.	Hinosan	(T/F)
4.	Sevin	(T/F)	9.	Tobacco decoction	(T/F)
5.	BHC	(T/F)	10.	Metacid	(T/F)

c) Which crop is attacked by each of the following pests ?

1.	Stem borer	(T/F)	6.	Case worm	(T/F)
2.	Fruit fly	(T/F)	7.	Rice bug	(T/F)
3.	Rhinoceros beetle	(T/F)	8.	Red palm weevil	(T/F)
4.	Epilachna beetle	(T/F)	9.	Leaf roller	(T/F)
5.	Rhizome weevil	(T/F)	10.	Coreid bug	(T/F)

d) Which crop is infected by each of the following disease ?

1.	Blast	(T/F)	6.	Quick wilt	(T/F)
2.	Stem bleeding	(T/F)	7.	Root (Wilt) disease	(T/F)
3.	Mahali	(T/F)	8.	Leaf rot	(T/F)
4.	Bud rot	(T/F)	9.	Sheath blight	(T/F)
5.	Bunchy top	(T/F)	10.	Soft rot	(T/F)

e) whether the following statements are true or false ?

1. Seed treatment is done to control diseases (T/F)

2. Tillering decreases if depth of planting is increased in rice (T/F)

3. Irrigation alone can increase coconut yield (T/F)

4. Bunchy top can be controlled from spreading by spraying insecticides (T/F)

5. Suckers that arise before the bunching of banana should be destroyed (T/F)

19. Knowledge about improved farm implements

Can you say,

a) Which of the following implement is used for threshing the harvested paddy ?

1. Seed drill

2. Seed drum

3. Paddy thresher

4. Power tiller

b) Seed drill helps in,

1. Mixing the seeds with chemicals

2. Sowing the seeds

3. Harvesting

4. Storing the seeds

c) Which of the following is used to mix the seeds with chemicals ?

1. Seed drill

2. Seed drum

3. Paddy thresher

4. Paddy harvester

d) Which of the following is most efficient in spraying paddy fields ?

1. Rocker sprayer
2. Knapsack sprayer
3. Hand sprayer
4. None of these

e) Maximum quantity of spray fluid to be filled in Knapsack sprayer is

1. 1/4th of the sprayer
2. 1/2th of the sprayer
3. 3/4th of the sprayer
4. Full

State whether the following statements are True or False

1. Mechanisation is not economic in small individual holdings (T/F)
2. Paddy thresher is also used to harvest the paddy fields (T/F)
3. Hand sprayer is most suitable for spraying in homestead vegetable gardens (T/F)
4. Knapsack sprayer can be filled with chemical completely (T/F)
5. Power tiller is used for ploughing only (T/F)
6. Rocker sprayer is used for spraying on tall trees (T/F)
7. Single person can operate Rocker sprayer for spraying (T/F)
8. Improved agricultural implements increase the work load of labourers (T/F)
9. Seed drill is useful to sow the seeds at uniform spacing (T/F)
10. Improved agricultural implements need a lot of skill in operation (T/F)

PART B

Following are some of the agricultural operations done by the labourers. Please indicate your order of preference in a continuum, ranging from "most preferred" to "least preferred". Also give the reasons for preference or non-preference.

FOR MEN

1. Paddy

Reasons for preference/non-preference

1. Ploughing ( )
2. Digging ( )
3. Levelling ( )
4. Organic manure application ( )
5. Sowing ( )
6. Irrigation ( )
7. Fertilizer application ( )
8. Spraying pp chemicals ( )
9. Harvesting ( )
10. Threshing ( )
11. Transportation ( )

2. Coconut

1. Land preparation ( )
2. Basin preparation ( )

3. Organic manure application ( )

4. Fertilizer application ( )

5. Spraying pp chemicals ( )

6. Irrigation ( )

3. Vegetables

1. Land preparation ( )

2. Sowing/planting ( )

3. Fertilizer application ( )

4. Spraying pp chemicals ( )

5. Irrigation ( )

6. Weeding ( )

7. Harvesting ( )

8. Transportation ( )

4. Tapioca

1. Land preparation ( )

2. Taking mounds ( )

3. Preparation of sets ( )

4. Planting ( )

5. Organic manure application ( )

6. Fertilizer application ( )

7. Intercultural operation ( )

8. Harvesting ( )

9. Transportation ( )

5. **Banana**

1. Taking pits ( )

2. Preparation of suckers for planting ( )

3. Transportation of suckers ( )

4. Planting ( )

5. Organic manure application ( )

6. Fertilizer application ( )

7. PP chemical application. ( )

8. Irrigation ( )

9. Harvesting ( )

10. Transportation ( )

FOR WOMEN

1. **Paddy**

1. Transportation of organic manure ( )

2. Transplanting ( )

3. Weeding ( )

4. Harvesting ( )

5. Transportation ( )
of harvested produce

6. Threshing ( )

7. Winnowing ( )

2. Vegetable

1. Sowing ( )

2. Fertilizer ( )
application

3. Irrigation ( )

4. Weeding ( )

5. Plant ( )
Protection

6. Harvesting ( )

7. Transportation ( )
of harvested produce

3. Tapioca

1. Preparation of ( )
sets

2. Planting ( )

3. Transportation ( )
of manures &
fertilizers

4. Harvesting ( )

5. Transportation ( )
of harvested produce

4. Banana

1. Transportation of suckers ( )
2. Preparation of suckers ( )
3. Irrigation ( )
4. Transportation of manures & fertilizers ( )
5. Transportation of harvested produce ( )

APPENDIX II

Employment and wage pattern for the fortnight (From to)

Sl. No.

Name and address of Respondent :

Sl. No.	Name of Operation	No. of days worked in the fortnight andwage earned/day												Total wage earned By the Family (Rs.)
		Self			Others (Adult)				Children					
					Male		Female		Male		Female			
		Place	days	wage (Rs.) Rate/ day Amt.	days	wage (Rs.) Rate/ day Amt.	days	wage (Rs). Rate/ day Amt.	days	wage (Rs.) Rate/ day Amt.	days	wage (Rs.) Rate/ day Amt.	

APPENDIX III

ATTITUDE SCALE

The statements selected for the attitude scale to measure the attitude of agricultural labourers towards agricultural labour

No.	Statements	'S' value	'Q' value
1.	Agricultural labour is one of the best jobs that I can get in any circumstances	5.30	3.79
2.	I feel much pride in doing agricultural labour	6.06	2.21
3.	Agricultural labour is merely a waste of energy	2.17	2.54
4.	I like very much to do agricultural labour	5.00	2.35
5.	Agricultural labour gives pleasure and keeps one in good health	5.57	2.16
6.	Those who accept agricultural labour as their occupation are wasting their life	2.28	2.63
7.	Being an agricultural labourer, I have to work from dawn to dusk	3.93	3.12

8. Agricultural labour is a very difficult task	3.39	2.22
9. I like this job as it provides employment opportunities to illiterate people also	5.23	1.68
10. Agricultural labourers pave way to better economic condition of our country	5.00	1.97
11. Without agricultural labourers, there will not be any agricultural production	6.05	2.00
12. Agricultural labour is a dull occupation	2.90	2.75
13. Nobody likes to become an agricultural labourer, as an agricultural labourer has only a very low social status	3.17	3.26
14. No one prefers to be an agricultural labourer, as it being the least promising job	3.36	3.10
15. Agricultural labour is the hope for the growing population of our country	5.13	2.25

DIFFERENTIAL PREFERENCE OF WORK BY AGRICULTURAL LABOURERS AND THEIR EMPLOYMENT AND WAGE PATTERN IN THIRUVANANTHAPURAM DISTRICT

BY

SINDHU DEVI, P., B. Sc. (Ag.)

ABSTRACT OF THE THESIS
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DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
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ABSTRACT

The study, 'Differential Preference of Work by Agricultural Labourers and their Employment and Wage Pattern in Thiruvananthapuram District' was conducted in 10 panchayats of the district with the following specific objectives.

1. To analyse the employment pattern of agricultural labourers of Thiruvananthapuram district.

2. To analyse the wage pattern of agricultural labourers of Thiruvananthapuram district.

3. To study the differential preference by agricultural labourers towards various agricultural operations and to analyse the reasons for preference or non-preference.

4. To study the socio-economic and psychological profile of agricultural labourers.

5. To suggest ways and means for equitable distribution of employment and income throughout the year.

The study was conducted in 10 randomly selected panchayats of Thiruvananthapurm district. A sample of 120

agricultural labourers ie, 60 male and 60 female, selected 12 labourers from each panchayat formed the respondents. Out of this, 40 labourers formed the sub-sample, from whom the data regarding the employment and wage pattern were collected with the help of a special schedule.

Personal interview was conducted with the help of a pre-tested, well structured interview schedule to collect data. Along with this, the differential preference by agricultural labourers towards different agricultural operations and the reasons for the preference or non-preference were also collected.

The profile characteristics selected for the study were age, sex, caste, religion, family type, family size, family income, experience, socio-economic status, cosmopoliteness, mass media participation, indebtedness, level of aspiration, achievement motivation, attitude towards scientific agriculture, attitude towards agricultural labour, participation in decision making, knowledge in farming and knowledge about improved farm implements. Salient findings of the study are as following.

During May to October, more employment was obtained for agricultural labourers. Total number of days employed by

a male agricultural labourer was 167 days and that of a female agricultural labourers was 141 days in a year. Number of days employed in agricultural labour was more than the number of days of employment in non-agricultural field. They were unemployed for about six to seven months in a year.

The works mostly engaged by the male agricultural labourer were digging, application of organic manure and fertilizers, basin preparation for coconut, taking mounds for tapioca etc. Transplanting, weeding and harvesting were the jobs mostly the female agricultural labourers engaged.

Average daily income of the male agricultural labourer was Rs.12.16 from agricultural labour and Rs.8.86 from non-agricultural works. The same for a female agricultural labourer was Rs.8.95 from agricultural labour and Rs.2.40 from non-agricultural works. In a male agricultural labour household and in a female agricultural labour household, the contribution of income from agricultural labour to the total annual household income were 53 per cent and 55.5 per cent respectively. Average annual income per agricultural labour household was Rs. 11382.20.

Male agricultural labourers preferred the hard works such as ploughing, digging, levelling, land

preparation, basin preparation, taking pits for banana, taking mounds for tapioca etc., as they possessed more strength and stamina for doing these operations and also due to the high wage rates for these operations. Female agricultural labourers preferred mostly transplanting, weeding and harvesting of paddy crops as these operations provided maximum number of days of employment to them. Least preference was given to plant protection by both male and female labourers as this is the most dangerous operation.

Majority of agricultural labourers were young, scheduled caste Hindus from nuclear families with less than five members. Majority of them were with low family income, low indebtedness, an experience of about 25 years, and high cosmopoliteness.

Majority of male labourers were with high education, high socio-political participation, high socio-economic status, high mass media participation, high level of aspiration (past, present and future), high achievement motivation and high attitude towards scientific agriculture.

Majority of female labourers were with low education, low socio-political participation, low socio-

economic status, low mass media participation, high level of past and present aspiration but low level of future aspiration, low achievement motivation and low attitude towards scientific agriculture.

Majority of the agricultural labourers had low attitude towards agricultural labour, high level of knowledge in farming and low level of knowledge about improved farm implements.

Majority of male labourers had high participation in decision making while majority of female labourers had low participation.

There was significant difference between male and female agricultural labourers with respect to their socio-political participation, socio-economic status, cosmopoliteness, mass media participation, level of aspiration (present and future), achievement motivation, attitude towards scientific agriculture, participation in decision making, knowledge in farming and knowledge about improved farm implements.