In the preceding chapter an attempt has been made to present the general profile of Ananthapuramu district and agricultural profile with special reference to groundnut profile of the district were discussed. In this chapter, an attempt is made to present the profile of selected respondents for the study with reference to their social and economic characteristics. There are 300 sample respondents spread over three Revenue Divisions.

The social characteristics of the respondents have been analysed with reference to age, caste, marital status, education status, number of family members, number of dependents, number of workers type of family status of the house electrification of house, source of drinking water, toilet facility etc.,

Social Category

In Indian society caste system decides the occupational and economic status of individuals. As such during field survey social status of sample respondents is elicited and presented in table 5.1.

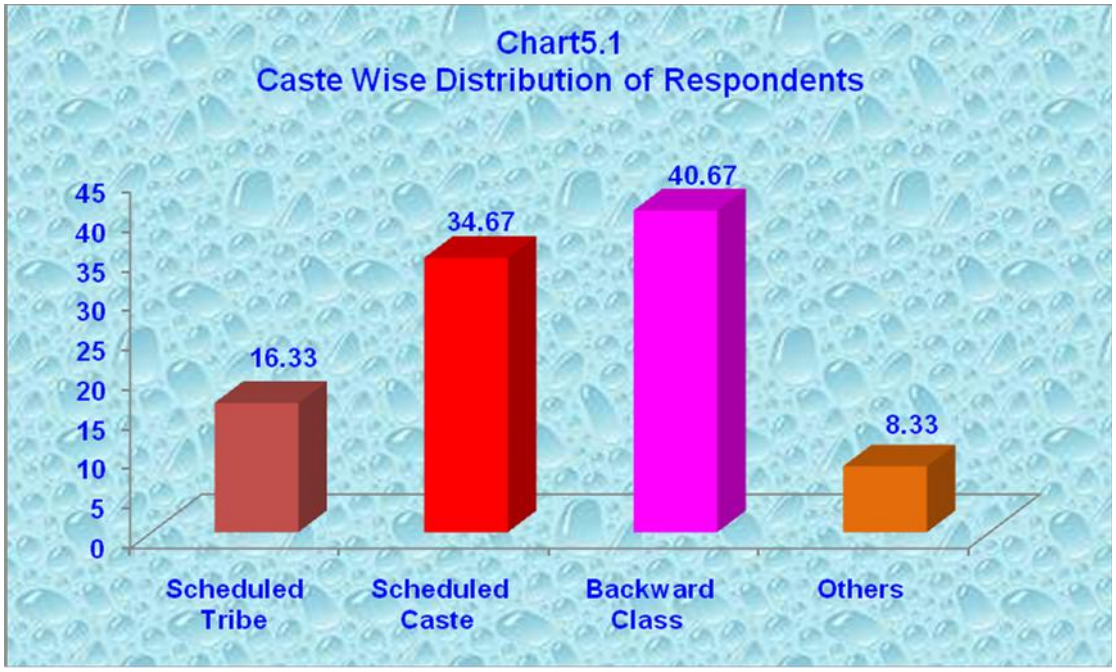
Table-5.1

Caste Wise Distribution of Respondents

S. No.	Social Category	No. of Respondents	Frequency
1	Scheduled Tribe	49	16.33
2	Scheduled Caste	104	34.67
3	Backward Class	122	40.67
4	Others	25	8.33
Total		**300**	**100.00**

Source: Field Data

It is evident from table 5.1 that large numbers of sample farmer respondents belong to weaker sections of the community. Among them 40.27 per cent belong to Backward Classes. They are followed by Scheduled Castes with 34.67 per cent and they in turn followed by Scheduled Tribes with 16.33 per cent. Around 8.33 per cent of sample farmers belong to non-reserved category in the study area.



Age of Respondents

The physical strength is essential to work in agricultural fields. Age is the important factor which decides the physical and mental capacities of human beings. The age particulars of sample respondents are presented in table 5.2.

Table -5.2

Age Wise Distribution of Respondents

S. No.	Age Groups	No. of Respondents	Frequency
1	Less than 25	23	7.66
2	26-30 Years	92	30.67
3	31-35 Years	104	34.67
4	36-40 Years	53	17.67
5	41 Years and above	28	9.33
Total		**300**	**100.00**

Source: Field Data

Table 5.2 reveals that large number of sample respondents belong to productive age group of 26-40 years. Among them 34.67 per cent of sample respondents were in the age group of 31-35 years, nearly 30.67 per cent are in the age group of 26-30 years and 17.67 per cent are in the age group of 36-40 years. Around 7.66 per cent of the respondents were less than 25 years of age. Nearly 9.33 per cent of sample farmers have 41 years and above.

Religion

The religious particulars of sample respondents are given in table 5.3.

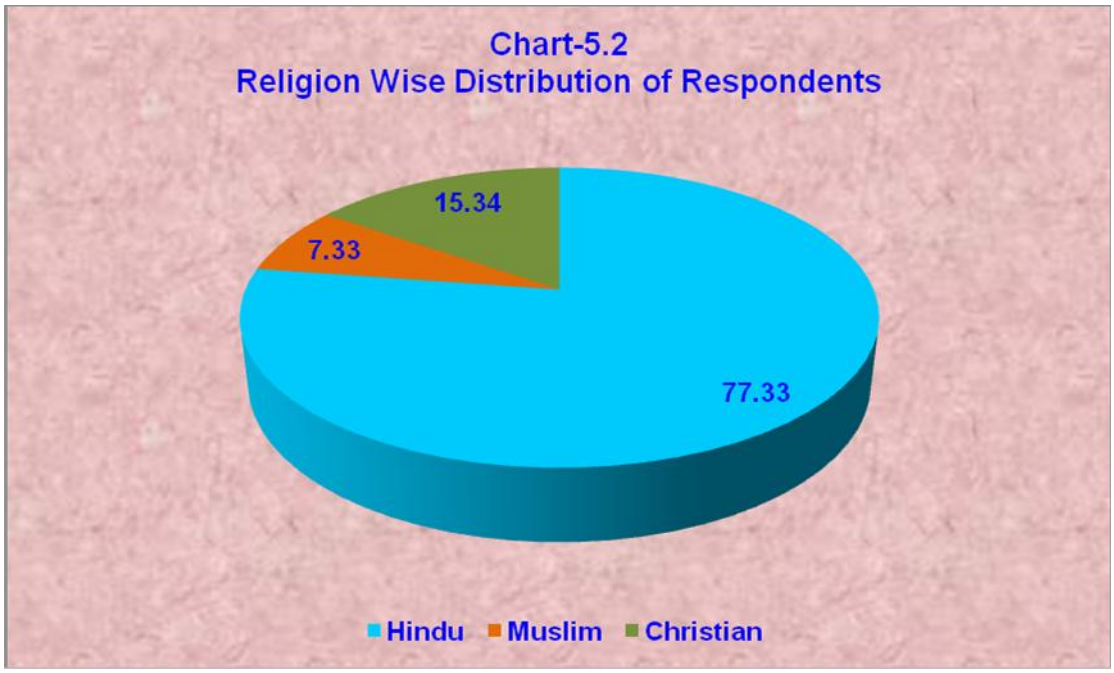
Table-5.3

Religion Wise Distribution of Respondents

S. No.	Religion	No. of Respondents	Frequency
1	Hindu	232	77.33
2	Muslim	22	7.33
3	Christian	46	15.34
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.3 that a preponderant majority i.e. 77.33 per cent of sample farmer respondents were the followers of Hinduism. About 15.34 per cent belong to Christian religion. The followers of Islam religion constitute 7.33 per cent of total sample. It can be concluded that most of the mine workers are the worshippers of Hindu gods in the study area.



Gender

The gender particulars of sample respondents were recorded during field survey and presented in table 5.4.

Table - 5.4

Gender Wise Distribution of Respondents

S. No	Gender	No. of Respondents	Frequency
1	Male	249	83.00
2	Female	51	17.00
Total		**300**	**100.00**

Source: Field Data

Table 5.4 shows that majority of the farmers cultivating groundnut are males in the study. To be precise nearly 83 per cent of the sample farmers are males. On the other hand 17 per cent of sample respondents are females. The low representation of women, as agriculture is due to property rights mostly confined to male members, instead of legislation for equal rights for women in property. Besides, natural limits of womanhood, motherhood will not allow women to work in farming sectors.

Educational Level

In present day world, technology plays a vital role in each and every sector of economy. In the same way in agricultural sector also, the technology helps a lot to the farmers in their farming activities and marketing their produce etc. Awareness on modern agriculture technology is possible only through education. Table 5.5 furnishes the particulars of educational levels of sample respondents.

Table-5.5

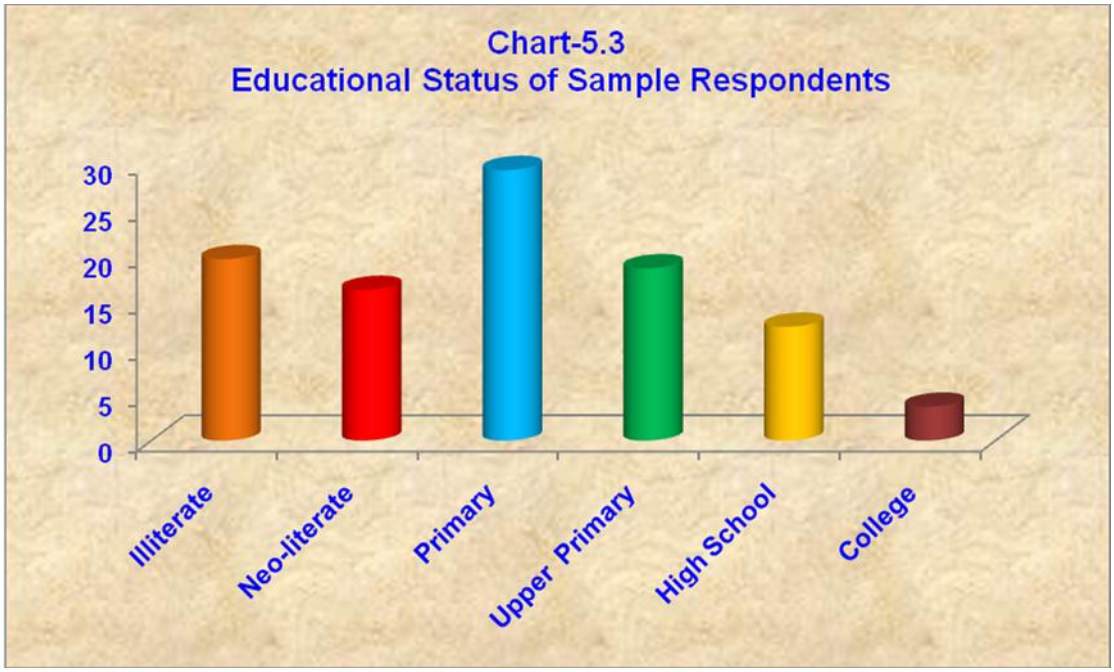
Educational Status of Sample Respondents

S. No.	Level of Education	No. of Respondents	Frequency
1	Illiterate	59	19.67
2	Neo-literate	49	16.33
3	Primary	88	29.33
4	Upper Primary	56	18.67
5	High School	37	12.33
6	College	11	3.67
Total		**300**	**100.00**

Source: Field Data

*****One who only signs his own signature

The data in table 5.5 shows that nearly one-third (column 4 of round 2 & 3) of sample respondents were either illiterates or neo-literates. To be precise nearly 19.67 per cent of sample respondents are illiterate and 16.33 per cent of respondents were neo-literate. These neo-literates have no formal education. But somehow they are able to sign their own signature. Among the literates nearly 29.33 per cent of sample respondents completed primary education. About 18.67 per cent of respondents have access to upper primary education. Nearly 12.33 per cent of sample respondents studied up to high school level. Only 11 out of 300 constituting 3.67 per cent of total sample have access to college education. It can be concluded that sample respondents is decreasing with an increase in educational level and vice versa.



Marital Status

The marital status of sample respondents is presented in table 5.6.

Table - 5.6

Marital Status of Sample Respondents

S. No.	Marital Status	No. of Respondents	Frequency
1	Single	32	10.67
2	Married	238	79.33
3	Widow	13	4.33
4	Separated	17	5.67
Total		**300**	**100.00**

Source: Field Data

It can be found from table 5.6 that large number of respondents were living with their life partners. Around 79.33 per cent of sample respondents were married. Nearly 10.67 per cent of sample respondents were unmarried. About 4.33 per cent of sample respondents lost their better halves. Around 5.67 per cent of sample respondents were separated.

Native Place

The native place of sample respondents is presented in table 5.7.

Table - 5.7

Native Place of Sample Respondents

S. No.	Native Place	No. of Respondents	Frequency
1	Rural	229	76.33
2	Semi Urban	58	19.34
3	Urban	13	4.33
Total		**300**	**100.00**

Source: Field Data

Table 5.7 shows that large number of sample farmer respondents hails from rural areas. Around 76.33 per cent of sample respondents belong to rural areas. The native place of 19.34 per cent of sample respondents is semi-urban areas. Only 4.33 per cent of sample respondents belong to urban areas.

Type of House

The housing particulars of sample respondents is furnished and presented in table 5.8.

Table-5.8

Type of House Living by Sample Respondents

S. No.	Type of House	No. of Respondents	Frequency
1	Katcha	43	14.33
2	Semi Pucca	154	51.33
3	Pucca	103	34.34
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.8 that there are wider variations with regard to type of house living in by sample farmer respondents. Around 14.33 per cent of the sample respondents were living in unsafe dwellings i.e. Katcha houses. More than half of the sample respondents constituting 51.33 percent were living in semi pucca houses. Around 34.34 per cent of the sample respondent families were living in Pucca houses. It can be concluded that most of the sample respondents are living in unsafe dwellings.

Status of House

The status of house living by sample respondents is presented in table 5.9.

Table - 5.9

Status of House Living by Sample Respondents

S. No.	Status	No. of Respondents	Frequency
1	Own	251	83.67
2	Rented	23	7.67
3	Others	26	8.67
Total		**300**	**100.00**

Source: Field Data

It can be found from table 5.9 that there are wider variations in the status of house of the sample farmer respondents. It is astonishing to note that nearly 251 out of 300 respondents constituting 83.67 per cent of total sample were living in own house. Around 7.67 per cent of sample respondents were living in rented houses. Nearly 8.67 per cent of sample respondents living in others houses.

Type of Family

The economic position of a household also depends upon the type of family. As such during field study the economic position of sample respondents' families is registered and the same is presented in table 5.10.

Table - 5.10

Type of Family of Sample Respondents

S. No.	Type of Family	No. of Respondents	Frequency
1	Nuclear	187	62.34
2	Joint	94	31.33
3	Extended	19	6.33
Total		**300**	**100.00**

Source: Field Data

It can be noted from table 5.10 that a preponderant majority i.e. 62.34 per cent of sample respondent's family is nuclear in nature. Around 31.33 per cent of sample respondents were living in Joint families. The respondent's living in extended families constitutes 6.33 per cent of total sample. It can be concluded that most of the respondents have small families in the study area.

Basic Facilities

The availability or non-availability of basic facilities in a household is the magnifier of economic well being of that household. As such during the field survey the availability or non-availability of basic facilities like electricity connection, sanitary latrine and drinking water availability were ascertained at the houses living at work place as well as native places and the same is presented in table 5.11.

Table - 5.11
Basic Facilities in the Sample Households

S. No.	Basic Facilities	Yes	Frequency	No	Frequency	Total	Frequency
1	Electrification of house	289	96.33	11	3.67	**300**	**100.00**
2	Sanitary latrine	68	22.67	232	77.33	**300**	**100.00**
3	Drinking water within 150 meter	118	39.33	182	60.67	**300**	**100.00**

Source: Field Data

It is evident from table 5.11 that there are noticeable variations with regard to availability or non-availability of basic facilities. Except electrification facility, the other two facilities are not available to large number of respondent's houses. Nearly 96.33 per cent of sample households have electric connection. In the same way the sanitary latrine facility is there in only 22.67 per cent of households. Around 39.33 per cent of households have the drinking water facility within the radius of 150 meters.

Primary Occupation

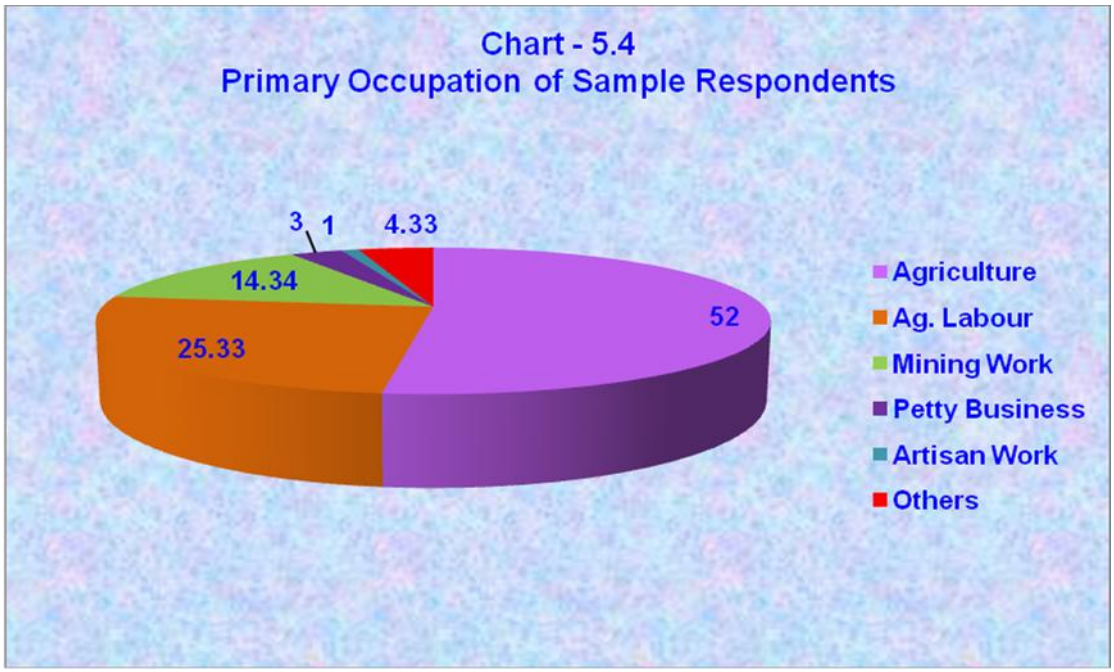
The primary occupation of the respondents has been elicited and the details are presented in the Table 5.12.

Table - 5.12
Primary Occupation of Sample Respondents

S. No.	Occupation	No. of Respondents	Frequency
1	Agriculture	156	52.00
2	Ag. Labour	76	25.33
3	Non-Ag. Labour	43	14.34
4	Petty Business	9	3.00
5	Artisan Work	3	1.00
6	Others	13	4.33
Total		**300**	**100.00**

Source: Field Data

Table 5.12 shows that the primary occupation of the 52 per cent of the respondents is agriculture. Around 25.33 per cent of the respondents' primary occupation is agricultural laboour. Non-agricultural labour is the primary occupation 14.34 per cent of sample respondents. Nearly 3 per cent sample farmers are dependent on petty business for livelihood. Only 3 out of 300 respondent's primary occupation is artisan work. The primary occupation of 4.33 per cent of sample respondents is private jobs, tailoring, ironsmith, carpenter etc. It is that nearly 77.33 per cent of sample respondent's are dependent on agriculture and allied activities.



Number of Dependents

The economic prosperity of the family is also influenced by the number of dependents in a particular family. As such during field survey the number of dependent particular in each respondent family is registered and presented in table 5.13.

Table-5.13

Number of Dependents in the Family of Sample Respondents

S. No.	No. of Dependents	No. of Respondents	Frequency
1	0	17	5.67
2	1	149	49.67
3	2	75	25.00
4	3	34	11.33
5	4	17	5.67
6	5 and above	8	2.67
Total		**300**	**100.00**

Source: Field Data

It can be inferred from table 5.13 that in half (49.67 per cent) of the sample households there is 1 dependent. Around 25 per cent of households are supporting 2 dependents like children/senior citizens/physically challenged persons. There are 3 dependents in 11.33 per cent of sample households. In 5.67 per cent of sample households there are 4 dependents. In 2.67 per cent the number of dependents is 5 and above. There are no dependents in 5.67 per cent sample households.

Number of Workers

The number of workers in the family is an important criteria to decide health and wealth of the family. Table 5.14 gives the details of number of working members in the sample households.

Table-5.14

Number of Workers in the Family of Sample Respondents

S. No.	No. of workers	No. of Respondents	Frequency
1	1	76	25.33
2	2	164	54.67
3	3	37	12.33
4	4	16	5.33
5	5	7	2.33
Total		**300**	**100.00**

Source: Field Data

It is crystal clear from table 5.14 that in preponderant majority i.e. 54.67 per cent of sample households the number of working members is confined to 2. It is learnt during field survey in most of these households both wife and husband working for the livelihood of the family. The number of working members in one-fourth of the sample household is limited to 1 person. In 12.33 per cent of sample households, the number of working members stood at 3 persons. Four members are working in 5.33 per cent of sample households. In 2.33 per cent of sample households 5 persons were working for livelihood.

Ration Card

Table 5.15 gives the particulars of ration cards possessing by sample represents families in the study area.

Table-5.15

Type of Ration Card Possessing by Sample Respondent Households

S. No.	Type of Card	No. of Respondents	Frequency
1	White	267	89.00
2	Pink	24	8.00
3	No Card	9	3.00
Total		**300**	**100.00**

Source: Field Data

It is evident from table 5.15 that a preponderant majority i.e. 89 per cent of sample households possessing “white” ration cards. Around 8 per cent of sample households have “pink” ration cards. 9 out of 300 sample households constituting 3 per cent of the total sample does not possess any ration card. It is learnt during field survey that these 9 families recently divided from joint family and as such no card is issued to them. It can be concluded that most of the sample farmer respondents were poor as they possess “white” Cards.

Annual Income

The annual income of the family decides the nature of the work that the family members undertook. Table 5.16 gives the particulars of annual income of sample respondent families.

Table -5.16

Annual Income Sample Respondents

S. No.	Type of Card	No. of Respondents	Frequency
1	Below 30, 000	154	51.33
2	30, 001 to 50, 000	104	34.67
3	50, 001 to 70, 000	24	8.00
4	70, 001 to 90, 000	14	4.67
5	above 90, 000	4	1.33
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.16 that the annual income levels of more than half of the sample households is below Rs.30,000. The annual income of 34.67 per cent of sample respondents is Rs.30,001 to Rs.50,000. In the

income group of Rs.50,001 to Rs.70,000 there are 8 per cent of sample respondents. The annual income of 4.67 per cent of sample respondents is Rs.70,001 to Rs.90,000. The income of 1.33 per cent of sample respondents is Rs.90,000 and above. It can be concluded that the annual income of respondents is decreasing with an increase in income groups.

Area under Groundnut

In sample district of Ananthapuramu the chief commercial crop for large number of farmer is groundnut. But the extent of area under groundnut is different from farmer to farmer. Table 5.17 given the particular of area under Groundnut with regard to sample farmers.

Table-5.17

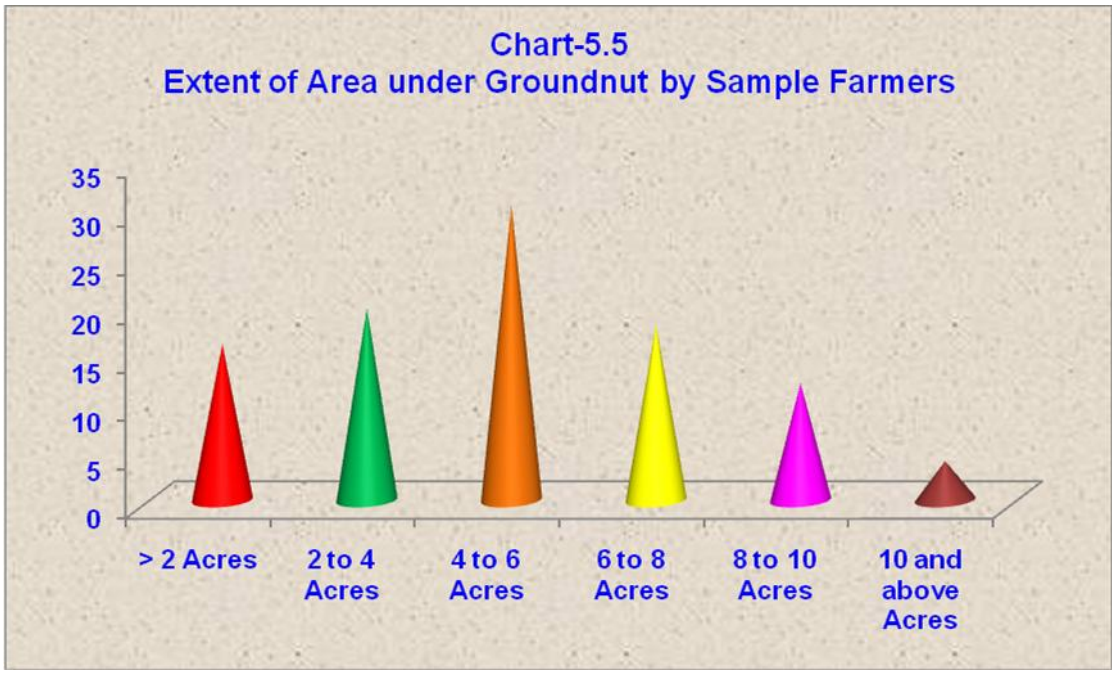
Extent of Area under Groundnut by Sample Farmers

S. No.	Area (in Acres)	No. of Respondents	Frequency
1	> 2 Acres	48	16.00
2	2 to 4 Acres	59	19.67
3	4 to 6 Acres	91	30.33
4	6 to 8 Acres	54	18.00
5	8 to 10 Acres	36	12.00
6	10 and above Acres	12	4.00
Total		**300**	**100.00**

Source: Field Data

It is evident from table 5.17 that the extent of area under groundnut is below 10 acres in case of large number (96 per cent) of farmers. As per the reports of 30.33 per cent of sample farmers the area under groundnut is 4 to 6 acres. Around 19.67 per cent of sample farmers stated that they cultivate

groundnut in 2 to 4 acres of land. The total area under groundnut is 6 to 8 acres as reported by 18 per cent of sample respondents. Less than 2 acres of land is under groundnut cultivation as per the responses of 16 per cent of sample farmers. The extent of groundnut area is 8 to 10 acres in case of 12 per cent of farmers. Around 4 per cent of farmers cultivating groundnut in 10 and above acres of land.



Percentage of Area

The percentage of area under groundnut cultivation depends on the total landholdings owned by farmers. In case of the farmers owning small landholdings, the percentage of area will be high and vice versa. Table 5.18 provides the information with regard to percentage of area under groundnut to total landholdings owned by sample farmers.

Table – 5.18

Percentage of area under groundnut to total cultivated area of sample respondents

S. No.	Percentage of Area	No. of Respondents	Per cent
1	> 10 %	11	3.67
2	10 to 20%	44	14.67
3	21 to 30%	8	2.67
4	31 to 40 %	85	28.33
5	41 to 50 %	33	11.00
6	51 to 60 %	49	16.33
7	61 to 70 %	26	8.67
8	71 to 80 %	23	7.67
9	81 to 90 %	15	5.00
10	91 and above	6	2.00
Total		**300**	**100.00**

Source: Field Data

The data in table 5.18 shows that in case of 76.67 per cent of sample farmers the percentage of area under groundnut is 50 per cent or less than 50 per cent of total landholdings. Among them 28.33 per cent of farmers land under groundnut is 31 to 40 per cent of total landholdings. In case of 14.67 per cent of sample farmers the percentage of area under groundnut is 10 to 20 per cent of total landholdings. Around 11 per cent of farmers reported that the percentage of groundnut cultivated land to total land is 41 to 50 per cent. The percentage of area under groundnut to total area is less than 10 per cent in case of 3.67 per cent of sample farmers. Nearly 21 to 30 per cent of area is under groundnut as per the reports of 2.67 per cent of farmers.

More than 50 per cent of land is under groundnut cultivation as per the reports 23.33 per cent of sample farmers. Most of these farmers total landholding size is limited. It can be inferred from the study that with an

increase in the percentage of area under groundnut, the total landholdings size of farmers decreases and vice versa.

Season

The groundnut plants will survive in all agro-climatic zones of India in all seasons. But, its production depends on the available rainfall or irrigation sources. As the Ananthapuramu district receives scanty rainfall, the irrigation source is limited. As such it is mostly grown during the rainy season. Table 5.19 gives the particulars of season in which groundnut are sown by farmers in sample study area.

Table – 5.19

Seasonal Cultivation of Groundnut by Sample Farmers

S. No.	Season	No. of Respondents	Frequency
1	Kharif	207	69.00
2	Rabi	57	19.00
3	Both above Seasons	34	11.33
4	Summer	2	0.67
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.19 that a preponderant majority i.e.69 per cent of farmers cultivate groundnut during Kharif season. It is sown during Rabi season by 19 per cent of sample farmers. Around 11.33 per cent of sample farmers will grow groundnut during both Kharif and Rabi seasons. Most of these farmers have irrigation facility. Around 0.67 per cent of farmers cultivate during the summer season.

Percentage of Groundnut Area under Irrigation

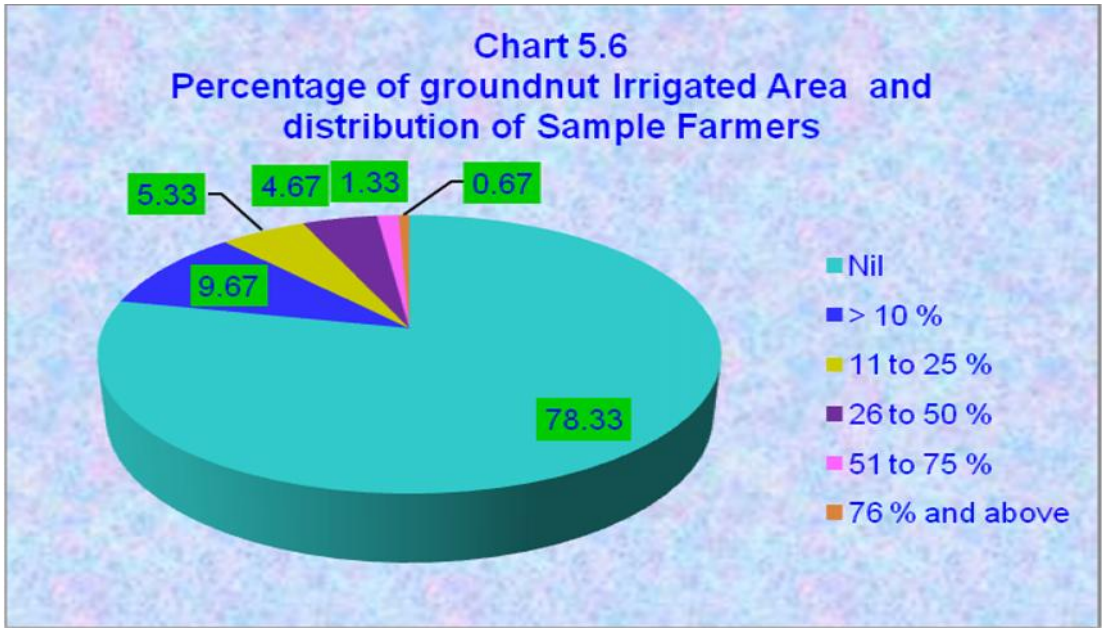
The farmers in the district cultivate the groundnut during South-West monsoon season, during which period district receives maximum rainfall. Some farmers cultivate the groundnut both under irrigated and un-irrigated lands. The particulars with regard to percentage of groundnut sown area under irrigation are furnished in table 5.20.

Table – 5.20

Percentage of Groundnut Area under Irrigation facilities

S. No.	Area under Irrigation	No. of Respondents	Per cent
1	Nil	235	78.33
2	> 10 %	29	9.67
3	11 to 25 %	16	5.33
4	26 to 50 %	14	4.67
5	51 to 75 %	4	1.33
6	76 % and above	2	0.67
Total		**300**	**100.00**

It can be found from the above study that a preponderant majority i.e. 78.33 per cent of farmers declared that all the groundnut that they have sown is depending on rainfall. Less than 10 per cent groundnut area is irrigated as per the reports of 9.67 per cent of sample farmers. Around 11 to 25 per cent of groundnut area is irrigated as per the statements of 5.33 per cent of farmers. Around 4.67 per cent of farmers said that 26 to 50 per cent of groundnut area is irrigated. Nearly 51 to 75 per cent of groundnut is under irrigation as per reports of 1.33 per cent of sample farmers. More than three-fourth land is cultivated under irrigation sources as per the reports of 0.67 per cent of sample farmers.



Seed Variety

The variety of seeds influences both production and productivity of a particular crop. The disease, pest resistance and dry spell resistance of groundnut is also depends upon the variety of seed. As such during field survey the information with regard to variety of seeds sown by sample farmers is registered and furnished in table 5.21.

Table- 5.21

Variety of Hybrid Groundnut Seed Sowing by Sample Farmers

S.No.	Name of Hybrid Seed	No. of Respondents	Frequency
1	K6	272	90.67
2	Dharani	15	5.00
3	K9	6	2.00
4	Vemana	2	0.67
5	TPT-4	2	0.67
6	Others	3	1.00
Total		**300**	**100.00**

Source: Field Data

It is crystal clear from table 5.21 that the most popular Hybrid variety of groundnut seed sowing by sample agriculturists is K6. A preponderant majority i.e. 90.67 per cent of sample farmers declared that they sow K6 variety of groundnut. The second important variety of seed is Dharani which is used by 5 per cent of agriculturists were using. K9 variety is sown by 2 per cent sample farmers. Negligible per cent of farmers were using Vemana, TPT-4 and other varieties of seeds.

Planting Pattern

The details of pattern and spacing between plants are furnished in table 5.22.

Table – 5.22

Planting Pattern and Spacing for Sowing Groundnut by Sample Farmers

S. No.	Planting Pattern	No. of Respondents	Frequency
1	Inter Row	266	88.67
2	Intra Row	34	11.33
Total		**300**	**100.00**
	Spacing		
3	30 to 45 CM	118	39.33
4	50 cm	141	47.00
5	60 to 72 cm	30	10.00
6	90 cm	11	3.67
Total		**300**	**100.00**

Source: Field Data

As per the table 5.22 the most popular planting method followed by groundnut growing farmers in the district is inter row method. As many as 88.67 per cent of sample respondent farmers declared that they follow inter row method of planting. On the other hand 34 farmers constituting 11.33 per cent of total sample declared that they follow intra row method of planting.

The spacing between plant to plant depends on the variety of seed sown, nature of soil and irrigation methods. As per the study 47 per cent of farmers declared that they leave 50 cms space between plant to plant. Around 39.33 per cent stated that the spacing between plant to plant is 30 to 45 cms. The spacing between plant to plant is 60 to 72 cms as stated by 10 per cent of sample farmers. Around 3.67 per cent of farmers reported they give up to 90 cms spacing between plant to plant.

Diseases/Pests

The groundnut plants are prone to several diseases/pests during their life time. Some of these disease frequently appear and others appear rarely. The prone of plant to diseases/pests are largely depends on atmosphere and climatic conditions of groundnut cultivating area. Table 5.23 gives the particulars of frequency of disease/pest attacks, which the sample farmers observe to their groundnut plants.

Table – 5.23

Frequency of Diseases/Pests attacked to Groundnut as Reported by Sample Farmers

S. No.	Diseases/Pests	No. of Respondents	Per cent
1	Very Frequently	64	21.33
2	Frequently	193	64.33
3	Rarely	31	10.33
4	Very Rarely	8	2.67
5	No Idea	4	1.34
Total		**300**	**100.00**

Source: Field Data

Table 5.23 reveals that a preponderant majority i.e. 64.33 per cent of farmers reported that the diseases/pests to the groundnut crop appears frequently. High frequency of disease/pest attack is reported by 21.33 per cent of sample farmers. Rare attacks of diseases/pests to groundnut is reported by 10.33 per cent sample respondent farmers. Very rare frequency of diseases is reported by 2.67 per cent of sample farmers. Around 1.34 per cent of sample farmers denied to respond.

Crop Pattern

A crop rotation is very important in groundnut farming, this helps in efficient nutrient utilization and reduces soil borne diseases and nematodes. It also helps to reduce the incidence of weeds. Maize, sorghum, pearl millet or small grain crops can be grown following groundnut. To reduce the incidence of soil borne diseases it is recommended not to grow groundnut after groundnut, or tobacco, or cotton.

Table 5.24 gives the details of crop rotation following by sample farmers in the study area.

Table – 5.24

Number of sample Farmers following Crop Rotation

S. No.	Season	No. of Respondents	Frequency
1	Yes	156	52.00
2	No	144	48.00
Total		**300**	**100.00**

Source: Field Data

It is evident from table 5.24 that more than half of sample respondent farmers were following crop rotation. Around 48 per cnt farmers are not

following crop rotation method. These farmers have given following reasons for not following crop rotation.

1. They are possessing only limited land. As such it is difficult to follow crop rotation method.
2. Groundnut is the only suitable commercial crop to grow in the available land.

Other Crops Sown

The other crops sown by sample farmers as a measure of crop rotation are presented in table 5.25.

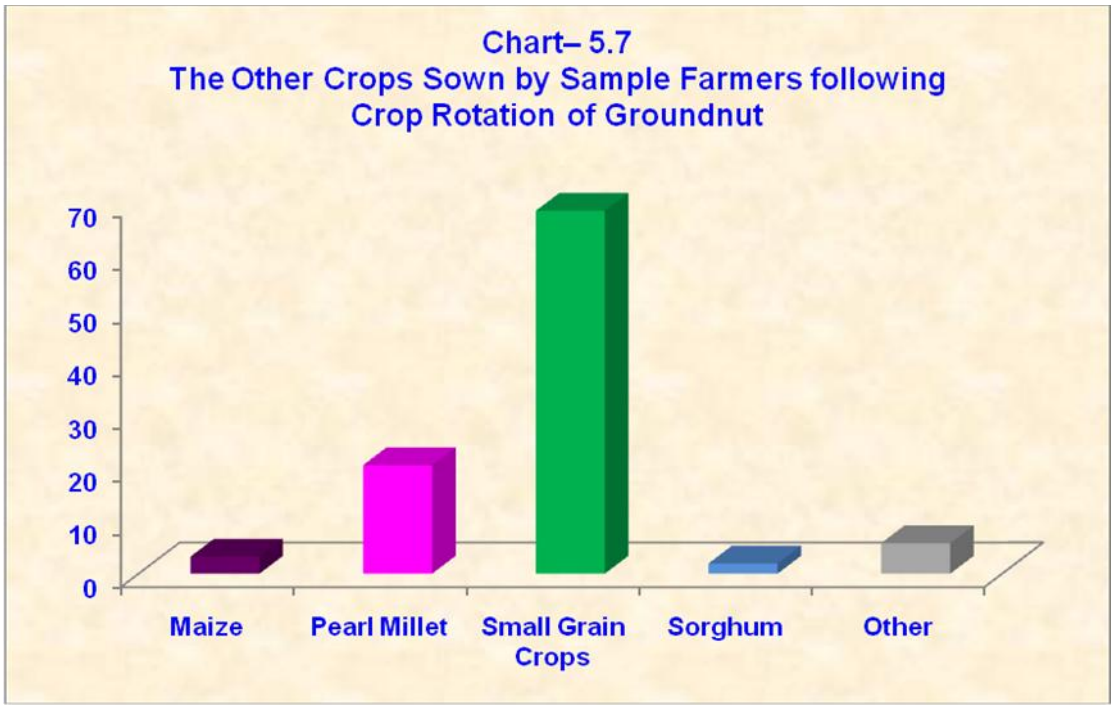
Table – 5.25
The Other Crops Sown by Sample Farmers following Crop Rotation of Groundnut

S. No.	Season	No. of Respondents	Frequency
1	Maize	5	3.21
2	Pearl Millet	32	20.51
3	Small Grain Crops	107	68.59
4	Sorghum	3	1.92
5	Other	9	5.77
Total		**156**	**100.00**

Source: Field Data

It is evident from table 5.25 that a preponderant majority i.e. 68.59 per cent of farmers growing small grain crops like Bajra, Korra, Ragi, Jowar etc to follow crop rotation method. Pearl millet is grown by 20.51 per cent of sample farmers. Around 3.21 per cent and 1.92 per cent of sample farmers growing maize and sorghum to follow crop rotation. Other crops like Bengal Gram,

Red Gram, Green Gram, Sunflower etc were growing by 5.77 per cent of sample farmers.



Fertilizer Application

The main fertilizer component in groundnut farming is Nitrogen, Phosphorus, Potassium, Calcium, Sulphur, Iron, Zinc. Deficiencies of boron, copper, molybdenum, manganese and magnesium can be corrected by soil application of these nutrients when symptoms appear, depending on soil type and agro-climatic conditions. Table 5.26 gives the details of ratings of fertilizers application by sample farmers.

Table – 5.26

Rating of Fertilizer Application to Groundnut by Sample Farmers

S. No.	Ratings	No. of Respondents	Frequency
1	High	34	11.33
2	Moderate	108	36.00
3	Low	144	48.00
4	Don't know	14	4.67
Total		**300**	**100.00**

Source: Field Data

It is apparent from table 5.26 that as many as 48 per cent of sample farmers rated their application of fertilizers as low. Around 36 per cent rated their fertilizer application on groundnut as moderate. High rating was assigned to fertilizer application by 11.33 per cent of sample farmers. Around 4.67 per cent of sample farmers not assigned any ratings.

Plant protection Measure

Table 5.27 presents the particulars of plant protection measures adopted /not adopted by sample respondent farmers.

Table – 5.27

Application of Plant Protection Measures by Sample Farmers

S. No.	Responses	No. of Respondents	Frequency
1	Followed	72	24.00
2	Not Followed	216	72.00
3	Don't know	12	4.00
Total		**300**	100.00

Source: Field Data

It is evident from table 5.27 that a preponderant majority i.e. 72 per cent of sample farmers are not following plant protection measures. About 24 per cent of sample farmers were following plant protection measures. About 4 per cent of sample farmers denied to respond.

Awareness of Farmers on Modern Methods of Cultivation

The day to day changes in science and technology resulting new techniques and methods of agriculture. Table 5.28 gives the details of awareness of sample respondents about modern methods of cultivation of groundnut.

Table – 5.28

Sample Respondent Farmers Awareness on Modern Methods of Cultivation of Groundnut

S. No.	Awareness	No. of Respondents	Frequency
1	Aware	28	9.33
2	Not Aware	261	87.00
3	Don’t know	11	3.67
Total		**300**	100.00

Source: Field Data

It is clear from table 5.28 that the awareness levels of farmers on modern methods of cultivation of groundnut. To be precise, about 87 per cent of sample respondents declared that they are not aware of modern methods of cultivation of groundnuts. Only 9.33 per cent of sample farmers are aware such new methods. Around 3.67 per cent of sample farmers are neither aware nor unaware of modern methods of cultivation of groundnut.

Investment on Groundnut Cultivation

The total investment particulars of groundnut for the year are presented in table 5.29.

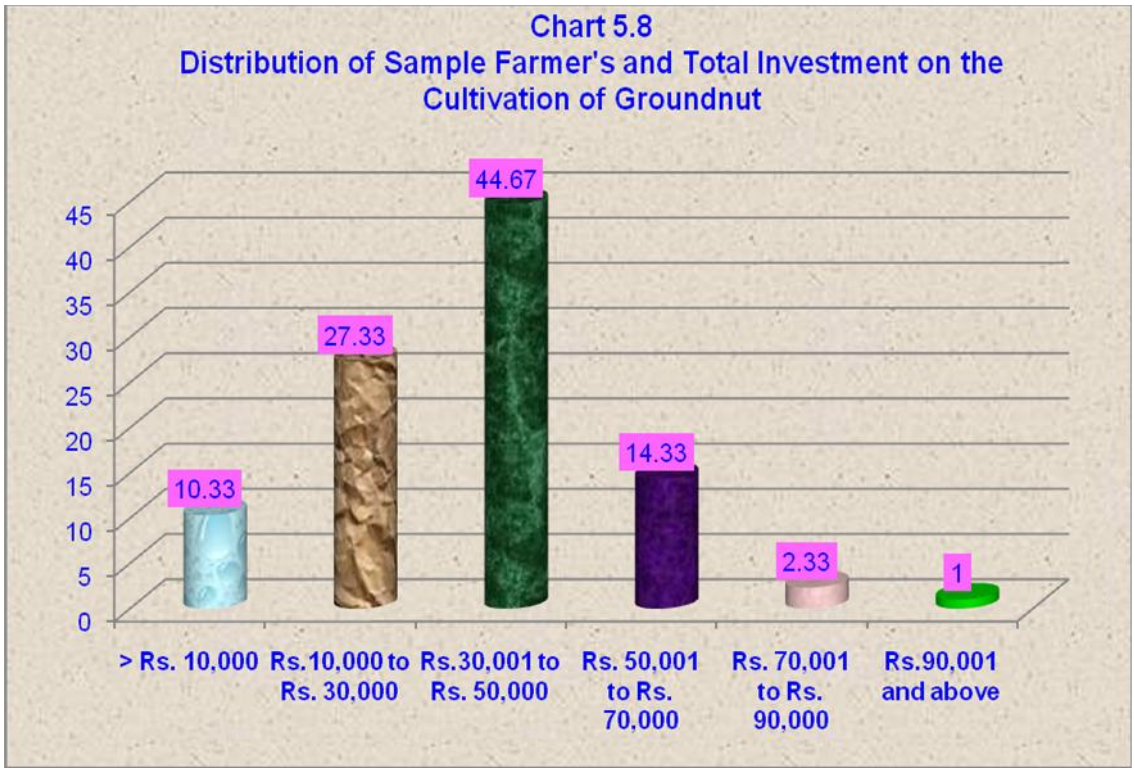
Table – 5.29

Total Investment on the Cultivation of Groundnut by Sample Farmers

S. No.	Amount (In Rs.)	No. of Respondents	Frequency
1	> Rs. 10,000	31	10.33
2	Rs.10,000 to Rs. 30,000	82	27.33
3	Rs.30,001 to Rs. 50,000	134	44.67
4	Rs. 50,001 to Rs. 70,000	43	14.33
5	Rs. 70,001 to Rs. 90,000	7	2.33
6	Rs.90,001 and above	3	1.00
Total		**300**	**100.00**

Source: Field Data

It is evident from table 5.29 that preponderant majority i.e. 44.67 per cent of farmers investment on groundnut is Rs.30,001 to Rs.50,000. Around 27.33 per cent of farmers invested an amount of Rs.10000 to Rs.30000 on groundnut cultivation. The investment on groundnut by 14.33 per cent of sample farmers is Rs.50001 to Rs.70000. Less than Rs.10,000 investment is made by 10.33 per cent of sample farmers. About 2.33 per cent farmers investment on agriculture ranges between Rs.2.33 per cent to Rs.90,000. 3 out of 300 respondent farmers investment on ground crossed Rs.90,000.



Returns from Groundnut

The value of total returns from groundnuts to sample farmers is presented in table 5.30.

Table – 5.30

Total Value of Returns from Groundnut Cultivation to Sample Farmers

S. No.	Return Amount (In Rs.)	No. of Respondents	Frequency
1	> Rs. 10,000	194	64.67
2	Rs.10,001 to Rs. 30,000	86	28.67
3	Rs.30,001 to Rs. 50,000	14	4.67
4	Rs. 50,001 to Rs. 70,000	6	2.00
5	Rs. 70,001 to Rs. 90,000	0	0.00
6	Rs.90,001 and above	0	0.00
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.30 that the return value of groundnut to sample farmers is less than investment. It is pertinent to note that as many as 64.67 per cent of sample farmers declared that their returns value from groundnut cultivation is less than Rs.10,000. The returns value of groundnut cultivation ranges between Rs.10,001 to Rs.30,000 in case of 28.67 per cent of sample farmers. About 4.67 per cent of sample farmers returns from groundnut cultivation is Rs.30,001 to Rs.50,000. Nearly 2 per cent of farmers returns from groundnut cultivation is Rs.50,001 to Rs.70,000. It is important to note that none of the farmers returns from groundnut cultivation crossed Rs.70,000.

Rating of Cost of Cultivation

The rating cost of cultivation as reported by sample farmers is presented in table 5.31.

Table – 5.31

Rating of Cost of Groundnut Cultivation by Sample Farmers

S. No.	Responses	No. of Respondents	Frequency
1	Very High	82	27.33
2	High	122	40.67
3	Low	59	19.67
4	Very Low	26	8.67
5	Don’t know	11	3.67
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.31 that more than three-fourth of sample farmers rated the cost of cultivation is high to very high. To be more precise, around

40.67 per cent of sample respondents rated the cost of cultivation of groundnut as high. Around 27.33 per cent of sample farmers rated it as very high. Nearly 19.67 per cent of sample farmers rated the cost of cultivation of groundnut as low and 8.67 per cent as very low. About 3.67 per cent of sample farmers not responded.

Rating of Groundnut Productivity

The rating of groundnut productivity as reported by sample farmers of the study area is presented in table 5.32.

Table – 5.32

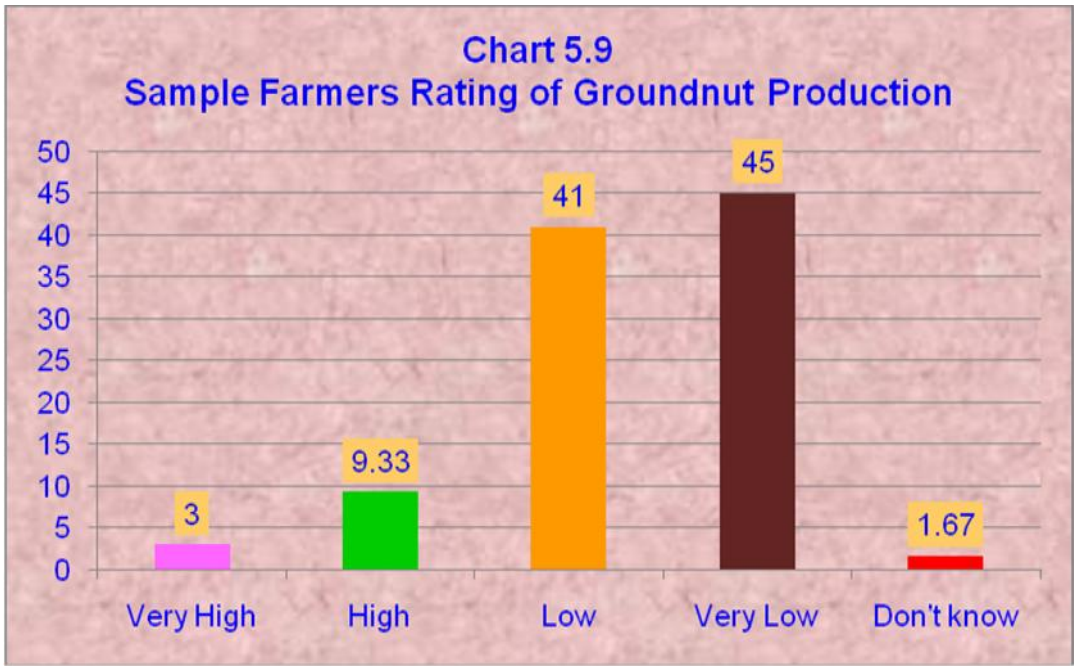
Rating of Groundnut Productivity by Sample Farmers

S. No.	Responses	No. of Respondents	Frequency
1	Very High	9	3.00
2	High	28	9.33
3	Low	123	41.00
4	Very Low	135	45.00
5	Don't know	5	1.67
Total		**300**	**100.00**

Source: Field Data

It is clear from table 5.32 that the productivity of groundnut in the study are is low or very low as compared to national and state level productivity. Nearly 45 per cent of sample farmers declared that the productivity of groundnut is very low. In the same way, 41 per cent of sample farmers rated the productivity of groundnut as low. About 9.33 per cent and 3 per cent of sample farmers rated the productivity of groundnut as high and very high

respectively. Most of these farmers were cultivating groundnut under irrigation sources. About 1.67 per cent of farmers denied to respond.



Share of Income of Groundnut Income to Total Income

The details with regard to the share of income from groundnut cultivation to total family income of sample respondent households are presented in table 5.33.

Table – 5.33

Share of Income from Groundnut Cultivation in the total Family Income

S. No.	Share of Income	No. of Respondents	Frequency
1	>25 %	60	20.00
2	26 to 50 %	109	36.33
3	51 to 75 %	92	30.67
4	76 % and above	39	13.00
Total		**300**	100.00

Source: Field Data

It is evident from table 5.33 that the share of income from groundnut cultivation to the total family income is 26 to 50 per cent in case of 36.33 per cent of sample farmers. The share of income from is 51 to 75 per cent in case of 30.67 per cent of respondents. About 20 per cent of farmers stated that the share of income from groundnut cultivation to the total family income is less than 25 per cent. The share of income from groundnut to the total family income is more than 75 per cent.

Problems in Cultivating Groundnut

Groundnut productivity in the Ananthapuramu region is low when compared to the state and national levels. This is due to various constraints to production. During certain severely constrained years, the farmers fail to recover even the minimal cost incurred on production. The following table 5.34 gives a clear picture of constraints facing by sample farmers in the production of groundnut.

The Ananthapuramu district is a chronically drought-prone area with soils that are low in fertility and water-holding capacity. The rainfall pattern is erratic as the amount and distribution of rainfall varies greatly from year to year. Groundnut is cultivated on marginal and sub-marginal lands under rainfed conditions. Using conventional methods, the farmers choose a certain "time window" (with some amount of assured rainfall) during the cropping season to sow the crop. In general, the initial crop establishment itself meets with failure due to lack of sufficient soil moisture. Even if the crop manages to establish, there is no assurance that the crop will attain normal maturity as the crucial phenological stages subsequent to crop establishment generally

coincide with dry spells in the region. This problem is constraining the groundnut production as per 66.33 per cent of sample farmers.

Table – 5.34

Problems Facing by Sample Groundnut Cultivating Farmers

(Multiple Responses)

S. No.	Problem	No. of Respondents	Frequency
1	Marginal and Sub Marginal Land	199	66.33
2	Low Levels of Inputs	124	41.33
3	**Use of low-yielding and late-maturing varieties**	223	74.33
4	Widespread Insect Pests, Diseases and Weeds	194	64.67
5	Inefficient Labour Use	159	53.00
6	High Cost of Inputs	258	86.00

Source: Field Data

The main reason for low levels of inputs is that resource-poor farmers cultivate the crop. In addition, with intensification of agriculture, soil fertility is fast degrading. Soils that were deficient in nitrogen some decades ago have now begun to show deficiency in major, secondary, and micronutrients. Despite the fact that Indian soils in general are deficient in organic matter content, with the increased use of chemical fertilizers, use of organic manure is being overlooked. The farmers lack awareness about important cultural practices such as seed treatment, method and time of sowing, application of proper quantities of plant nutrients, and plant protection measures. The present agrarian infrastructure lacks appropriate agronomic technology for

different agro-climatic regions and location-specific technology for high and low input conditions to suit the socioeconomic environments of big and marginal farmers. The problem of low level of input use is one of the reasons for low yielding of groundnut as reported by 41.33 per cent of farmers.

Another reason for low productivity in the region is the non-availability of high-yielding and biologically-efficient varieties tested and suited to the specific region. Farmers use low-yielding and late-maturing varieties. Some of the high-yielding groundnut varieties known to have performed well in other groundnut-growing states of the country are not available for distribution in the region. Since farming in the region is a risky proposition, early-maturing varieties with high yield potential, harvest index, resistance to drought, insect pests, and diseases, and high oil content are needed. This problem is stated by 74.33 per cent of sample farmers.

Around 64.67 per cent of sample farmers reported the problem of widespread insect pests, diseases and weeds. Insect pests, diseases, and weeds are a serious menace to the groundnut crop in the region. The region suffers from a serious incidence of insect pests such as aphids, white grub, and diseases such as late leaf spot (caused by Phaeoisariopsis personata) and rust (caused by Puccinia arachidis). Even when the seasonal weather appears to favor high crop yields, the farmers are still not assured of a bumper crop due to severe disease and pest attack. The resource- poor farmers do not employ any integrated pest management (IPM)- based plant protection measures.

The problem of inefficient labour use is reported by 53 per cent of sample farmers. Despite moderately high cost efficiency in groundnut production, there appears to be inefficiency in labor use. This is primarily due to non-availability of farm labor and partly due to high wage rates prevailing in the area, resulting in less than optimal availability of labor required in the production process.

A preponderant majority i.e. 86 per cent of farmers reported the problem of high cost of inputs in the study area. Inputs such as seed and fertilizers are not easily available or are highly priced. There is a lack of credit facility for purchase inputs and a lack of marketing facilities for efficient distribution of inputs. Non-availability of quality seeds at affordable prices has been a serious problem for small and marginal farmers. Hence the farmers resist using new varieties with high yield potential. In addition, the absence of an organized certified seed production and distribution system in the region is strongly felt. To cite an example of the inadequacy of the present setup, the seed requirement for 7.2 million ha of groundnut crop during 1984-85 was 1.1 million t, while only 26,000 tons of certified seed (2.5% of the requirement) were produced in the country during that year.