A STUDY ON FARMERS PERCEPTION AND SATISFACTION TOWARDS USAGE OF DRIP IRRIGATION WITH SPECIAL REFERENCE TO AVINASHI TALUK

Dr. M. PRAKASH

Professor

DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

Dr. N.G.P. ARTS AND SCIENCE COLLEGE

COIMBATORE – 48

Mr. PARATHKUMAR S

Mr. GOWTHAM J

III-B.COM CA

DEPARTMENT OF COMMERCE WITH COMPUTER APPLICATIONS

Dr. N.G.P. ARTS AND SCIENCE COLLEGE

COIMBATORE – 48

ABSTRACT:

Drip irrigation is a type of micro-irrigation system that has the potential to save water and nutrients by allowing water to drip slowly to the roots of plants, either from above the soil surface or buried below the surface. The goal is to place water directly into the root zone and minimize evaporation. Drip irrigation systems distribute water through a network of valves, pipes, tubing, and emitters. Depending on how well designed, installed, maintained, and operated it is, a drip irrigation system can be more efficient than other types of irrigation systems, such as surface irrigation or sprinkler irrigation. The natural resources are limited and under pressure due to rapidly increasing demands by human beings.

Keywords: Micro -irrigation, Surface irrigation, pipes, emitters, tubing, water, soil.

INTRODUCTION:

Agriculture is the most and largest components India's economic structure. Nearly third fourth of the Indians depend s on agriculture and it contributes much towards India's economic developments. It is also true to say that agricultural developments contribute towards industrialization of the nation. Drip irrigation provides slow, even application of low-pressure water to soil and plants using plastic tubing placed in or near the plants' root zone. It is an alternative to sprinkler or furrow methods of irrigating crops. Drip irrigation can be used for crops with high or low water demands.

OBJECTIVE OF THE STUDY:

1. To study the Demographic profile of respondence in Tirupur district.
2. To Analyze the Perception of drip irrigation in agriculture.
3. To Analyze the level of satisfaction of the farmer by using the drip irrigation.

SCOPE OF THE STUDY:

1. To identify the impact of the drip irrigation
2. To study how drip irrigation helps in improving productivity
3. To analyse how drip irrigation bring changes to farming.

RESEARCH METHODOLOGY:

Research methodology is a way of explaining how a researcher intends to carry out their research. It's a logical, systematic plan to resolve a research problem. A methodology details a researcher's approach to the research to ensure reliable, valid results that address their aims and objectives.

SOURCE OF DATA:

The data required of the study is collected from both primary data and secondary data.

PRIMARY DATA - It is collected through questionnaire.

SECONDARY DATA - It is collected through journals, books,documents.

SAMPLING TECHNIQUE:

Sampling technique used for the collection of data required for the research study is convenience sampling method.

SAMPLE SIZE:

The sample size of this study consists of 130 respondents.

AREA OF THE STUDY:

The study has been undertaken in Avinashi taluk areas.

LIMITATIONS OF THE STUDY:

1. The study was conducted in Avinashi taluk area only. Hence the results may not be applicable to other geographical areas.
2. The sample size of only 120 respondence is low when compared to the total population.
3. The study has been done with in the limited period of 4 months.
4. The study is purely depended on the response provided by the respondents.

STATISTICAL TOOLS AND TECHNIQUES:

- Percentage analysis
- Rank analysis

SIMPLE PERCENTAGE ANALYSIS

The percentage analysis is employed in this study to assess the distribution of respondents under each classification. The distribution of respondents expressed in percentage facilitates comparison.

FORMULA:

Percentage = Number of respondents / Total no. of. Respondents*100.

TABLE

CLASSIFICATION OF RESPONDENTS ACCORDING TO THEIR DEMOGRAPHIC PROFILE AND STUDY FACTOR

S. NO	VARIABLES	CATEGORIES	NO. OF RESPONDENTS	PERCENTAGE
1	AGE	BELOW 25	**7**	**5.8%**
		25-35	**19**	**15.7%**
		35-45	**47**	**38.8%**
		ABOVE 45	**48**	**39.7%**
2	GENDER	MALE	**108**	**89.3%**
		FEMALE	**13**	**10.7%**
3	EDUCATIONAL	UNEDUCATED	**36**	**29.8%**
	QUALIFICATION	SCHOOLLEVEL	**65**	**53.7%**

		UNDER GRADUATE	**19**	**15.7%**
		POST GRADUATE	**1**	**0.8%**
4	MONTHLY INCOME	BELOW10000RS	**7**	**5.8%**
		10001-20000RS	**24**	**19.8%**
		20001-30000RS	**66**	**54.5%**
		ABOVE30000RS	**24**	**19.8%**
5	LANDHOLDING TYPE	OWNED AREA	**97**	**80.2%**
		LEASED AREA	**19**	**15.7%**
		IRRIGATED AREA	**1**	**0.8%**
		RENTED AREA	**4**	**3.3%**
6	FAMILY MEMBERS EMPLOYED IN AGRICULTURE	UP to 2 MEMBERS	**34**	**28.1%**
		3 MEMBERS	**60**	**49.6%**
		4 MEMBERS	**23**	**19%**
		ABOVE 4 MEMBERS	**4**	**3.3%**
7	SOURCE OF WATER FOR LAND	TUBEWELL	**11**	**9.1%**
		OPENWELL	**43**	**35.5%**
		LIFT FROM CANAL	**10**	**8.3%**
		GROUND WATER	**57**	**47.1%**
8	CULTIVATED USING DRIP IRRIGATION	BELOW 2	**18**	**14.9%**
		2-4 ACRES	**49**	**40.5%**
		4-6 ACRES	**41**	**33.9%**
		ABOVE 6 ACRES	**13**	**10.7%**
9	FARM IS LOCATED	URBAN	**7**	**5.8%**
		SEMI-URBAN	**19**	**15.7%**

		RURAL CITY	**94** **1**	**77.7%** **0.8%**
10	KNOW ABOUT THE DRIP IRRIGATION SYSTEM	DEALERS NEIGHBOR FARMERS HORTICULTRAL DEPARTMENT ADVERTISEMENT	**19** **60** **30** **12**	**15.7%** **49.6%** **24.8%** **9.9%**
11	WATER QUANTITY IS CHANDED USING DRIP IRRIGATION	LARGLY IMPROVED IMPROVEMENT NO CHANGES SHARP FALL	**28** **75** **17** **01**	**23.1%** **62%** **14%** **0.8%**
12	TYPES OF IRRIGATION SYSTEM	SURFACE/FUR ROW IRRIGATION DRIP IRRIGATION SPRINKLER IRRIGATION LOCALIZED IRRIGATION	**24** **63** **26** **8**	**19.8%** **52.1%** **21.5%** **6.6%**
13	DRIP IRRIGATION SAVES WATER	YES NO	**119** **2**	**98.3%** **1.7%**

(Source: as per primary data)

INTERPERATION:

The table shows that Most (39.7%) of the respondents are in the age category of above 45 years. The Majority (89.3%) of the respondents are Male. The Majority (53.7%) of the respondents are school level. The majority (54.5%) of the respondents are between 20001-30000 Rs of monthly income. The Majority (80.2%) of the respondents has owned area of land. Most (49.6%) of the respondents are themselves employed in farming and they are 3 members. The most (47.1%) of the respondents are using ground water. The most (40.5%) of the respondents has the 2-4 acres of land. The Majority (77.7%) of the respondents are in the rural areas. The most (49.6%) of the respondents are known by the neighbour farmers. The majority (62%) of the respondents are said improvement on water quantity is changed using drip irrigation. the majority (52.1%) of the respondents are using the drip irrigation. The majority (98.3%) of the respondents are said yes to drip irrigation saves water.

RANKING ANALYSIS:

The karl pearson's method is based on the assumption that the population being studied is normal or when the shape of the distance is not known, there is need for a measure of correlation that is need for correlation that is need for correlation that involves no assumption above the parameter of the population.

FORMULA:

$R = | - 6 \Sigma D2 / N (N2 – 1)$

S. NO	SATISFACTION LEVEL	HS	S	N	DS	HDS	SCORE	RANK
1	LESS WATER CONSUMPTION	82 (5) 410	28 (4) 112	09 (3) 24	01 (2) 2	01 (1) 1	549	I
2	SAVES TIME	41 (5) 205	72 (4) 288	07 (3) 21	- (2) 0	01 (1) 1	515	III
3	REDUCE LABOUR	66 (5) 330	35 (4) 140	18 (3) 54	01 (2) 2	01 (1) 1	527	II
4	NO SOIL	23	49	21	25	03		

	EROSION	(5) 115	(4) 196	(3) 63	(2) 50	(1) 3	427	V
5	MAXIMUM CROP YIELD	28 (5) 140	41 (4) 164	23 (3) 69	19 (2) 38	10 (1) 10	421	VI
6	SAVES MONEY	28 (5) 140	54 (4) 216	17 (3) 51	13 (2) 26	09 (1) 9	442	IV
7	SEED GERMINATION IS IMPROVED	14 (5) 70	25 (4) 100	25 (3) 75	44 (2) 88	13 (1) 13	346	IX
8	WORKS WITH LOW PERSSURE	12 (5) 60	28 (4) 112	21 (3) 63	34 (2) 68	26 (1) 26	329	X
9	PREVENTS FUNGUS	19 (5) 95	26 (4) 104	19 (3) 57	42 (2) 84	15 (1) 15	355	VIII
10	REDUCE UNWANTED WEEDS	24 (5) 120	31 (4) 124	19 (3) 57	25 (2) 50	22 (1) 22	373	VII

INTERPRETATION:

The table shows that less water consumption ranked 1st with the score of (549), reduce labour ranked 2nd with the score of (527), saves time ranked 3rd with the score of (515), saves money ranked 4th with the score of(442), no soil erosion ranked 5th with the score of (427), maximum crop yield ranked 6th with the score of (421), reduce unwanted weeds ranked 7th with the score of (373), prevents fungus ranked 8th with the score of (355), seed germination is improved ranked 9th with the score of (346), works with low pressure ranked 10th with the score of (329).

- Most (39.7%) of the respondents are in the age category of above 45 years.
- The Majority (89.3%) of the respondents are Male.
- The Majority (53.7%) of the respondents are school level.
- The majority (54.5%) of the respondents are between 20001-30000 Rs of monthly income.
- The Majority (80.2%) of the respondents has owned area of land.
- Most (49.6%) of the respondents are themselves employed in farming and they are 3 members.
- The most (47.1%) of the respondents are using ground water.
- The most (40.5%) of the respondents has the 2-4 acres of land.
- The Majority (77.7%) of the respondents are in the rural areas.
- The most (49.6%) of the respondents are known by the neighbour farmers.
- The majority (62%) of the respondents are said improvement on water quantity is changed using drip irrigation.
- The majority (52.1%) of the respondents are using the drip irrigation.
- The majority (98.3%) of the respondents are said yes to drip irrigation saves water.

RANKING ANALYSIS.

- Most of the respondents ranked less water consumption (549).

SUGGESTIONS:

- After conducting the survey and knowing the market, I realized that the farmer should awareness about the drip irrigation and their benefits and know the government subsidies for the irrigation adoption.
- And government should support the young generation farmers, the government introduced no of scheme and provide 50% subsidies for small and marginal farmers for irrigation adoption and farmers should know that.

CONCLUSION:

The study concludes the perception and satisfaction of farmers towards usage of drip irrigation, the reasons for favouring drip irrigation were like low cost of water and labour, increase in yield of crop. The reasons for not adopting drip irrigation were the lack of information of drip irrigation system and higher cost of installation. Majority of the farmers had medium level of knowledge about the drip irrigation technology. On the whole 48.33 per cent farmers were found to be medium adopters of drip irrigation technology. The government should encourage the water savings, so the farmers can use the water properly and get maximum yield. Under the Tamil Nadu Micro Irrigation Scheme, farmers can receive a subsidy of up to 100% of the cost of installing drip irrigation systems, based on the size of their landholding.