

## A STUDY ON THE FARMING PATTERNS OPTED BY FARMERS WITH REFERENCE TO SUBSIDY AND PROMOTIONAL STRATEGIES

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### Abstract

Traditional methods were used since ancient periods for irrigating farms. A few that come to mind are like natural rain, flood irrigation, bunds irrigation and etc. One of the most important systems is the Drip Irrigation System. Many farmers assume that they have to spend a lot on a drip or a sprinkler system for irrigation, but a drip system can be set up quickly and easily and with very little money invested no matter how large, or small, your farm is. The subsidy for Drip Irrigation that has been set up by the Ministry of Agriculture is in the ratio of 4:1. The research survey shows that there is a need to increase the awareness through Promotion activities such as advertisement at the dealers and field level promotion activities. The study found that farmers are unhappy with replacement policy of all the dealers who blame the company for delay. It is becoming increasingly clear that with the advent of high yielding varieties the next major advance in our agricultural production is expected to come through efficient water management practices like adoption of water saving methods such as micro irrigation.

**Keywords:** Farmers, Farms, Irrigation, Promotion, Subsidy.

### I. Introduction

When it comes to irrigating your farms, there have been traditional methods that were used since ancient periods. A few that come to mind are like natural rain, flood irrigation, bunds irrigation and etc. These are not easier to use than as they require a lot of physical work even if you have a canal or a bore well, you have to have a number of bunds running through the borders and across your farm which do not reach every plant for equal water distribution. But in modern world, there are various new systems that will help you get the job done. One of the most important systems is the Drip Irrigation System. Many farmers assume that they have to spend a lot on a drip or a sprinkler system for irrigation, but a drip system can be set up quickly and easily and with very little money invested no matter how large, or small, your farm is.

Drip irrigation provides farmers the most efficient way to grow crops in water scarce areas, but historically has been too expensive for small-plot farmers. After first approaching manufacturers of commercial drip irrigation systems, many drip manufacturing companies developed their own design for small farmers. The designers lowered the cost of drip systems by replacing conventional emitters with holes and micro tubes, shifting water distribution lines extending to crops, and customizing system layouts for small plots. In fact, any plot from .4 hectare (one acre) and above can benefit from these systems. They provide water savings of 30 - 70 percent, greatly reduce labor, and accurately deliver fertilizers. This makes cultivation during the dry season possible, with resulting yield increases of up to 40 percent.

Drip irrigation, also known as Trickle irrigation, is an irrigation method that saves water and fertilizer by allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone, through a network of a bore, filters, valves, pipes, tubing, and emitters. It is done through narrow tubes that deliver water directly to the base of the plant. Drip and subsurface drip irrigation is used almost exclusively when using recycled municipal waste water. Regulations typically do not permit spraying water through the air that has not been fully treated to potable water standards.

In addition, drip can eliminate many diseases that are spread through water contact with the foliage. Finally, in regions where water supplies are severely limited, there may be no actual water savings, but rather simply an increase in production while using the same amount of water as before. In very arid regions or on sandy soils, the preferred method is to apply the irrigation water as slowly as possible.

## II .Literature Review

**Shilp Verma ( 2004)** studied about the Recent Developments which promoted micro irrigation in India. The Aga Khan Rural Support Program (India) [AKRSP (I)] is involved in the promotion of micro irrigation technologies in Saurashtra, India. Instead of providing subsidies to farmers, which is the traditional way of providing incentives for purchase, they have supported private entrepreneurs to set-up manufacturing plants locally. Initial results from this experiment have been very positive and such models, if found successful, need to be replicated aggressively. IWMI itself has set up an experiment in north Gujarat – an action research project in Banaskantha district – to facilitate large scale adoption of water saving technologies. The fountainhead of IWMI’s strategy in north Gujarat has been to manipulate the demand for water in agriculture without compromising on the net returns from agriculture, so as to cut down groundwater pumping.

**A.Narayanamoorthy (2005)** presented a paper regarding Efficiency of Irrigation. The results of the study show that water saving and water use efficiency of different crops cultivated under drip method of irrigation is significantly higher when compared with those under flood method of irrigation. Productivity as well as profit of different crops is also found to be higher with the crops cultivated under drip method of irrigation. This new irrigation technology also helps to save considerable amount of electrical energy used for lifting water from wells. Benefit-cost ratios with different discount rates indicate that drip investment in sugarcane, banana and grapes cultivation remains economically viable even without subsidy. The findings as well as the policy recommendations of the study are expected to be useful for promoting the drip method of irrigation in India.

**Vaibhav Bhamoriya & Susan Mathew (2014) analyzed about Resource Conservation Technology.** The findings show the positive impact of drip irrigation on soil quality, and on improving the capacity of agriculture to cope with power, labor and water scarcity. Findings indicate for a wealth maximizing impact on various kinds of farmers, it is very important to provide support to the farmers after the sales.

### **III .Research Methodology**

#### **3.1 Statement of Problem:**

Drip method of irrigation is introduced specifically to increase the water use efficiency in Indian agriculture during the eighties. In order to increase their agricultural productivity it is important for the farmers to be aware of the various farming pattern and the subsidies they seek from the government and companies on these farming patterns.

#### **3.2 Research Objectives:**

- To study various farming patterns opted by farmers depending on the type of soil.
- To analyze the impact of relationship between the awareness towards subsidy and its help in opting of farming pattern by the farmers.
- To gain an insight into various brand factors preferred by farmers.

#### **3.3 Hypothesis:**

**Hypothesis H0:** There is no significant relationship (correlation) between the awareness of subsidy and its help in opting of Farming Pattern, Opting of Subsidy, fulfilling of the Promises made by the Government and Selection of Dealer.

**Hypothesis H1:** There is a significant relationship (correlation) between the awareness of subsidy and its help in opting of Farming Pattern, Opting of Subsidy, fulfilling of the Promises made by the Government and Selection of Dealer.

#### **3.4 Primary Data:**

Primary data has been collected using a schedule which was translated to the farmers for recording their experiences and views covering various dimensions of the research questions. Convenient sampling technique was used to collect data for the research. The sample size consisted of 30 respondents, mainly farmers. A schedule, containing close ended questions was used as a research instrument for this study.

#### **3.5 Secondary Data:**

Secondary data has been collected from books, internet, literature and other relevant documents. Magazines, Journals, Fact sheets, Company Websites, online libraries and websites are other sources. Discussions with HoDs and professors of agricultural universities were also used as a source for this study.

#### **3.6 Statistical Techniques used**

##### **Chi square test:**

The application of chi square test in this study was to determine whether there exists relationship between awareness of farmers towards subsidy and opting of farming pattern. The test was also used to gain an insight that whether there is a significant difference between brand factors of

various companies in terms of Quality, Popularity, Price, Efficiency, Durability, Availability and Subsidy.

#### IV .Data Analysis

##### 4.1 Testing of hypothesis:

**Table 1:**Showing the Testing of Hypothesis for various dimension of services.

Hypothesis	Level Of Significance	Calculated Value	Tabulated Value	Accepted/Rejected
The type of soil and farming pattern are independent of each other.	5%	0.273	0.05	Alternate Hypothesis is accepted
There is no significant relationship between the awareness of subsidy and its help in opting of Farming Pattern	5%	0.489	0.05	Null Hypothesis is rejected
There is No significant difference in between the brand factors preferred by farmers of different companies	5%	6.175	0.05	Alternate Hypothesis is accepted
There is no significant difference in between the experience of products and the service parameters of a Brand	5%	0.932	0.05	Alternate Hypothesis is accepted

**Table 2:** Showing the Correlation Coefficient of “Help from Subsidy Awareness”

<b>Correlation</b>	<b>Farming Pattern</b>	<b>Option of Subsidy</b>	<b>Government Promises</b>	<b>Selection of Dealer</b>
Pearson Correlation	.467	.489	.538	.500
Sig.(2-tailed)	.011	.010	0.007	.011
N	29	. 27	24	25

#### 4.2 Interpretation:

1. Hypothesis H0: The type of soil and farming pattern are independent of each other.

Hypothesis H1: The type of soil and farming pattern are dependent on each other.

Inference:

The type of soil and farming pattern are dependent on each other. This is because the farmer may select any crop that he wants to grow only on the basis of type of soil that he has in his lands, but also according to various factors like the climatic conditions, water availability, cost of seeds and inputs and other factors.

2. Hypothesis H0: There is no significant relationship between the awareness of subsidy and its help in opting of Farming Pattern.

Hypothesis H1: There is a significant relationship between the awareness of subsidy and its help in opting of Farming Pattern.

Inference:

It indicates that more awareness of subsidy helps in Opting of Subsidy by the farmers; Promises made by the Government are equally fulfilled, helps in selection of a good Dealer and also helps in following a suitable Farming Pattern, which is a point of optimism to the company, as it increases the probability of purchasing intention of products. However, observing the values, it shows that the relationship between the awareness of subsidy and its help in opting of a good Farming Pattern is strong.

3. Hypothesis H0: There is No significant difference in between the brand factors preferred by farmers of different companies.

Hypothesis H1: There is a significant difference in between the brand factors preferred by farmers of different companies.

Inference:

The Quality, Popularity, Price, Efficiency, Durability, Availability and Subsidy are very competitive in nature and there is significant difference between the companies. This is because the farmer may select the brand that he wants to purchase only on the basis of quality, efficiency and availability.

4. Hypothesis H0: There is no significant difference in between the experience of products and the service parameters of a Brand.

Hypothesis H1: There is a significant difference in between the experience of products and the service parameters of a Brand.

Inference:

Hence we can conclude that the experience of respondents on usage of products and the perception on the services provided by Brand don't go hand in hand with each other.

5. It indicates that more awareness of subsidy helps in Opting of Subsidy by the farmers; Promises made by the Government are equally fulfilled, helps in selection of a good Dealer and

also helps in following a suitable Farming Pattern, which is a point of optimism to the company, as it increases the probability of purchasing intention of products. However, observing the correlation values, it shows that the relationship between the awareness of subsidy and its help in opting of a good Farming Pattern, Opting of Subsidy, fulfilling of the Promises made by the Government and Selection of Dealer is weak.

## **V. Findings**

- Most Government sales take place on the basis of discounting of bills where the dealer receives only the non-subsidiary billed amount from the farmers (i.e.10-30% of total bill) and the rest payment (70-90%) is recovered by the dealer from the farmer by cheque that is received by the Government.
- The average price of drip irrigation system excluding subsidy varies from Rs.35000 to Rs.60000 per acre based on the plotting of the land and plant spacing layout and for sprinkler irrigation it varies from Rs.20000 to Rs.45000 per acre.
- Majority of the farmers in have opted for drip irrigation as there is sufficient underground water available in the area but insufficient power supply by the Government.
- There have been a lot of cases of manipulation of farmers land documents and forgeries which lead to higher drip system grants but lower area covered under the granted subsidy.
- Through my findings, it is recorded that the dealers usually take care extra charges of 5% to 7% for implementation of drip system in the land and 15% to 20% indirect commission for installing the system much in advance at the farmer's land and waiting for the subsidy grant by the Government.
- The State and the Central Government together have to grant the amount of subsidy in order to fulfill and pay the amount to the farmers, dealers and the companies. Because of two different political parties ruling in the State and Central Government, there are complaints about clashes in decision making and granting of subsidiary budget.

## **VI. Suggestions**

- There is need to increase the awareness through Promotion activities such as advertisement at the dealers and field level promotion activities.
- Adequate and continuous supply of all good quality and tested irrigation components should be provided.
- Company should concentrate on brand image through service and promotional activities. After sales service such as, demonstration of declogging liquid for drippers, examination and testing of laterals, valve change, meter replace etc. should be improved.
- In the present study it was found that farmers are unhappy with replacement policy of all the dealers who blame the company for delay. Company can focus on these aspects of dealer's satisfaction for developing good image of company in market.
- Due to availability of various resources like infrastructure, machinery, power, labor and raw material, instead of working on typical products on 8 hour shift basis depending on the orders, the company can think on expansion of product line, product width and product depth.
- The company instead of spending more on advertisement campaigns can instead help the farmers collectively to know what exactly is needed by them to grow a good crop and fetch a

good yield with minimum inputs and resources and earn maximum benefits and profits. Only then the farmers will realize the importance of drip irrigation and the company's values which shall build a strong customer base with loyal customers.

## VII .Conclusion

The concept of irrigation is as old as the human civilization; however there has been enhanced efficiency in the irrigation patterns over a period of time. Adoption of improved water management practices is an important need of the day. India's crop production suffers not only from drought but also from indiscriminate use of irrigation water. There is wastage of huge quantity of water with the present methods of irrigation which were in vogue. It is becoming increasingly clear that with the advent of high yielding varieties the next major advance in our agricultural production is expected to come through efficient water management practices like adoption of water saving methods such as micro irrigation.

Farmers are the main reasons from whom we get our major food resources in the country. They play a significant role in the economic growth of the country. As it contributes 18% of total GDP and constitutes 70% of the total population including farmers, middle men and the supported businesses. Government has taken many initiatives and offered numerous subsidy plans regarding drip irrigation.

Almost all the companies including agro-based industries like seed, manure and fertilizers Industries have taken initiatives to promote drip irrigation to farmers. Companies should concentrate on brand image through service and promotional activities which will help them to earn a greater market share in the private market. This can also help the company to sell their products to farmers without the help of Government subsidy to a greater extent.

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