



Factors influencing farmer's buying behavior towards pesticides in Jammu and Kashmir (UT)

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ABSTRACT

The research was intended to study the factors influencing farmer's buying behavior towards pesticides in Jammu region of Union Territory of Jammu and Kashmir. The research was carried out on the basis of primary as well as secondary data. The research was conducted with the help of questionnaire based on the information collected from the farmers, wholesalers and dealers in Jammu district. A total sample of 100 respondents was taken in which 80 were farmers and 20 were dealers and retailers. The study revealed that all the respondents i.e. (100.00 per cent) utilised pesticides in their routine farming. Insecticides i.e. (47.50 per cent) were mostly preferred among all the pesticides types. Farmers preferred purchasing of pesticides from local market i.e. (56.30 per cent). Farmer decided at their own for purchasing pesticides i.e. (57.50 per cent). Farmers generally spent 1000-2000 rupees in one farming season i.e. (61.30 per cent). Maximum respondents i.e. (21.30 per cent) preferred Bayer Crop Science Ltd. the most. It was found that the respondents i.e. (38.80 per cent) have been using pesticides for more than 20 year. The pesticides were always available to the respondents i.e. (50.00 per cent) at the right time for utilisation in the farming. Farmers i.e. (67.50 per cent) generally opt to purchase from retailers and dealers. The overall study revealed that farmers used pesticides in order to get good yield. Effective control and efficacy was the main factor in regard to the preference of buying of pesticides. The respondents always kept price factor in mind while purchasing pesticides.

Key words: Buying behavior, consumption, pesticides, usage pattern

Agriculture is referred to as India's economic backbone. Agriculture accounts for 20.2 percent (www.pib.gov.in) of India's GDP in 2020-21, approximately 60 per cent of the population is working in agriculture. India is one of the world's largest producers of pesticides and with over five hundred pesticide formulators are spread all over the country but pesticide consumption in India is among the lowest in the world with consumption of less than 1 kg/ha as compared to USA which is about 4.5 kg/ha and Japan about 11 kg/ha, while the total intake in paddy is about 28 per cent and in case of cotton pesticides it is about 20 per cent and others 52 per cent. The low consumption is because of lack of awareness, less money and less surplus cultivable land (IBEF, 2019). If developing country like India, where population is increasing day by day, wants to make substantial progress in the agricultural sector, it has to solve problems of food grain wastage which happens due to lack of proper pesticide arrangements and better storage. For instance, nearly 35 to 45 per cent production of crop is damaged due to various insects, unwanted undergrowth and crop related diseases, whereas about thirty five per cent crops are spoiled in the process of storage arrangements (www.pib.gov.in).

Pesticide industry plays a very prominent role in foreign exchange. There are a number of methods to control the damage of crop production. The most effective and frequently utilized pesticides are to kill insects with the help of insecticides, herbicides to vanish the growth of unwanted plants and rodenticides to thwart the menace of rodents and fungicides to control fungi. In India, 58% is dependent on agricultural income and less

than 1/3rd of our GDP is dependent on agriculture (ibef.org). The Indian Agrochemical industry ranks fourth globally where as the top producers are US, Japan and China respectively. The agrochemical industry plays a very important and a vital role in agriculture of the country and worldwide.

Various studies carried out from time to time has proven the facts that these pesticides are hazardous to the human health and can pose serious problems. As a result of these studies, harmful effects have been noticed in the countries like Nepal, Africa and India. Studies shows that the farmers generally opt to use pesticides which provides them high crop yields irrespective of the effects and consequences of the sub standard pesticides. Farmers pay less attention towards his own health which can be caused by these pesticides.

MATERIALS AND METHODS

Indian Market of Pesticides: In India, the pesticide production began in the year 1952 with the establishment of BHC factory near Calcutta, and India currently ranks 2nd in Asia after China in terms of pesticide production and ranking 12th globally. In India, insecticides accounts for 76% of pesticide use, compared to 44% globally. The main use of pesticide in India is for cotton crops (45 per cent). There are 234 pesticides registered in India. Out of these, 4 are class 1a pesticides, 15 are WHO 1b pesticides and 76 are WHO class 2 pesticides, together constituting 40 per cent of the registered pesticides in India during 2000, Bio-pesticides accounted for only 0.2 percent of the global pesticide market, but by 2005, it grew to 2.5 percent, and by 2013, it increased to 5% (National Library of Medicine). The market has seen a sharp decline in insecticides share over a period of time i.e. from about 70% in 2003-04 to 39% in 2016-17. But on the other hand, chemicals like fungicides, herbicides, rodents reducing chemicals have gained ascending trend over the period of time. These are also being enormously used for fruit and vegetables. So the usage of fungicides in particular is on the rise. Acephate, 2-4-D, Profenofos and Mannose etc. are the most commonly produced pesticides in India. In the year 2016-2017, the State of Punjab utilized maximum pesticides per hectare (about 0.74 kilogram), 0.62 kilogram by Haryana and 0.57 kilogram by Maharashtra respectively, whereas the States those who used less quantity of pesticides are Karnataka, Madhya Pradesh, Bihar, Karnataka and Rajasthan (Ministry of Chemicals and Fertilizers, ICAR-NIAP, 2016-2017).

In order to thwart the spread of various parasites in the agriculture produce, fungicides, herbicides and insecticides are regularly being used. Nonetheless, in India, insecticides play a considerable and important role in the usage of pesticides. The overall consumption of pesticides in our country, per hectare or otherwise, has shown a tremendous rise after the year 2009-2010. In the year 2014-15, the use of pesticides was 0.29 kilogram per hectare, which is over 50% higher than in the year 2009-2010. The latest boost in pesticide use is because of more use of herbicides since the manual weed control costs have considerably increased due to upsurge in agricultural earnings (FICCI, 2015). But if we compare with other countries like Japan (11.85 kilogram per hectare), China (13.06 kilogram per hectare), Brazil (04.57 kilogram per hectare) and some other countries of Latin America, consumption of pesticides in India is significantly low (fao, 2017).

After the United States, Japan, and China, India's agrochemical sector ranks fourth globally. Insecticides have a great share in the India's crop protection market which is about 65%. The Fungicides accounts for 15%, Herbicides is about 16% and Bio-pesticides and others are 4% (pib.gov.in, 2018) however pesticides consumption in India ranks 10th in the world having total consumption around 500 million tonnes. About 95 per cent of the pesticides requirement is indigenously produced while the consumption pattern is in paddy pesticides is about 28%, cotton pesticides is 20% and others are about 52%. The Exports account for over 47% of total turnover in the Indian agrochemicals industry. In India, 58% of the population is dependent on agro income and livelihood. Less than 1/3rd of GDP is agriculture dependent (ibef.org, 2019). The agrochemical industry has the potential to play a critical role. In India the usage of pesticides was 52859 MT in 2014-15 and 57543 MT in 2019-20. The usage of pesticides in the union territory of J&K was 1921 MT in 2014-15 and 2198 MT in 2019-20.

In the year 2020, India was in need of about 300 million tonnes of food grain. To meet this task the food production had to be augmented by 5 million tonnes a year. So, there was a need for extra food production which required extra crop protection from pests. Modern agriculture can be realized only if crops were to be protected from pests, weeds and diseases. Pest control has always been necessary to sustain the increased level of production (GOI, MOAFW 2020).

Buying Behavior : The buying behavior refers to activities which lead the purchasers to buy the required items as per his liking where he can purchase according to their requirement and basic needs based on availability of purchasing power so as to accrue maximum benefits within the given resources or income.

In today's world purchases made by a farmer is to satisfy his or her needs. All the behavioral activities carried out by a farmer during and after the purchase of a product are termed so as "buying behavior". The

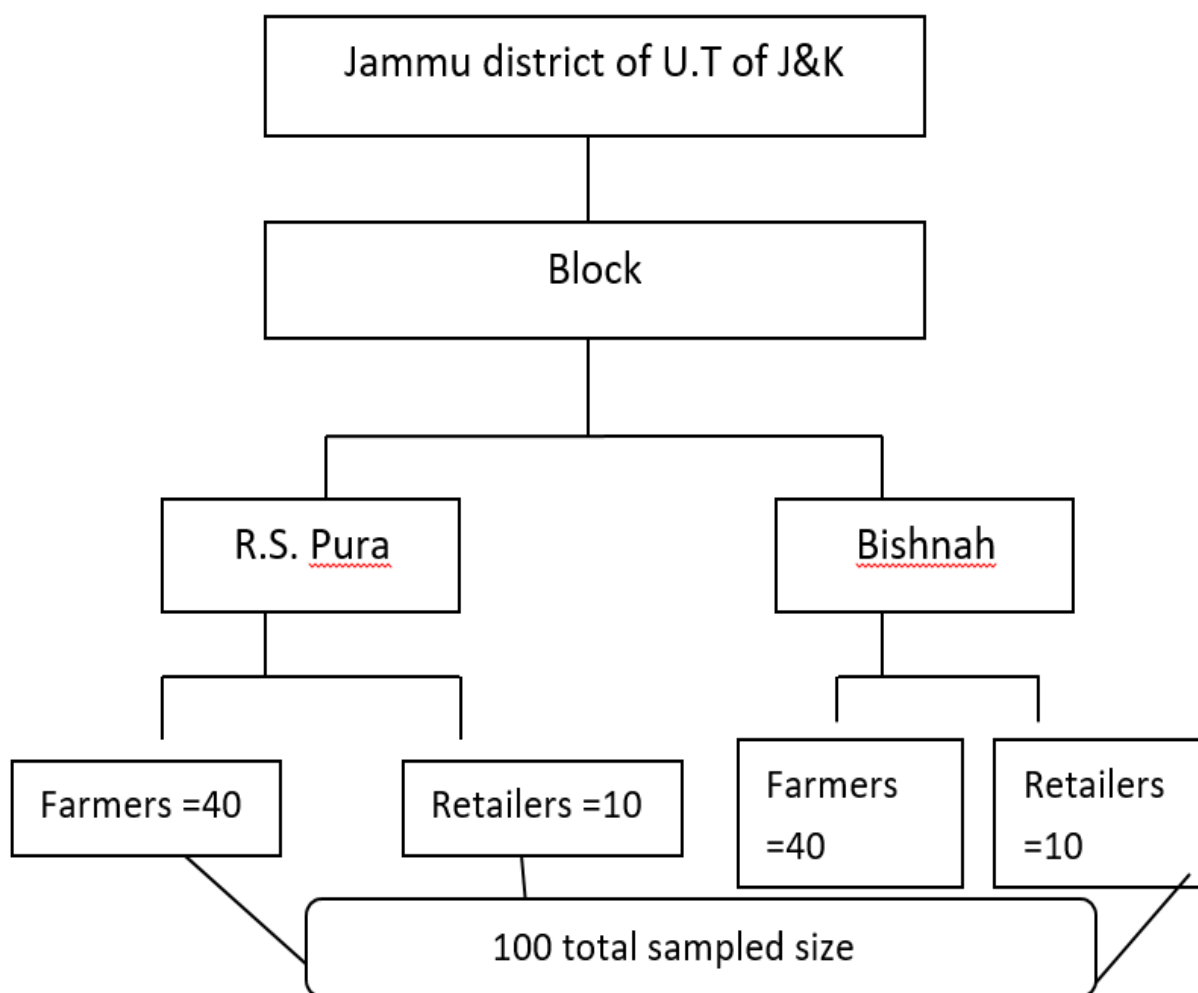
origin of buying ideas, what is buying behavior, how consumers buy, why consumers buy, types, decision process, and what motivates them will all be discussed in this study.

Research methodology: A concise explanation of the research methodology was adopted in the selection of study area, selection of sample respondents, data collection and various analytical tools were used, discussed and presented.

Locale Study: The study was conducted in R.S. Pura and Bishnah blocks of Jammu District (J&K) and data was collated based on a questionnaire and schedule compiled for the purpose.

Sampling Technique: The present study adopted convenient sampling technique to conduct the survey in the selected area.

Sample Size: To conduct the study 80 farmers and 20 retailers from each block were selected



The study used both Primary as well as secondary Data collection methods for fulfilling the main objective of the study.

Methods of Analyzing data:-Conventional tools like descriptive statistics, Cross Tab, Bar graphs and other Statistical tools like Percentage analysis, Henry Garret ranking technique and Cross Tab using SPSS V26 were adopted for analysis purpose.

Percentage Analysis: Here "percentage" means ratio which compares two or more than two sets of data. The term refers to special types of rates and percentage that are used in making logical comparisons between two or more number of facts. Moreover, it is also used to determine the relationship between the series.

Formula: Percentage = $(x/y) \times (100/1)$

Where x and y denotes:

‘x’ = No. of respondents responded

‘y’ = total No. of respondents

Henry Garrett Ranking Technique: By referring to Henry Garret's table, the percentage position of each rank gained is transformed into scores. The scores of individual respondents are then added together for each element, and the total number of respondents for whom the scores are added is divided by the total number of respondents for which the scores are added.

Formula: Percentage position = $100(R_{ij} - 0.5)/n$

Where: R_{ij} is the rank

N = number of items

Cross Tab SPSS: SPSS Statistics is a statistical analysis software tool that can be used for interactive or batched analysis and SPSS stands for Statistical Package for the Social Sciences. In SPSS, crosstabs summarise the relationship between various categorical data variables. Crosstabs can help in showing the proportion of cases in subgroups. The basic crosstabs in the SPSS command provides counts by default. The table dimensions are $R \times C$, where R is the row variable's number of categories and C is the column variable's number of categories.

RESULTS AND DISCUSSION

Gender of the respondents (Farmers): The Table 1 represents gender of the respondents. Out of 80 respondents 70 respondents i.e. (87.50 per cent) were male followed by 10 females i.e. (12.50 per cent) which were female.

Table 1: Gender of the respondents (Farmers)

Gender of the respondents				
Gender	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Female	10	12.50	12.50	12.50
Male	70	87.50	87.50	100.0
Total	80	100.0	100.0	

Marital status of the respondents: The Table 2 represents marital status of the respondents. Out of 80 respondents 75 respondents i.e. (93.75 per cent) were married, followed by 5 respondents i.e. (6.25 per cent) were unmarried.

Table 2: Marital status of the respondents

Marital status of the respondents				
Marital Status	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Unmarried	5	6.25	6.25	6.25
Married	75	93.75	93.75	100.0
Total	80	100.0	100.0	

Educational qualification of the respondents: The Table 3 represent educational qualification of the respondents. Out of 80 respondents, 2 respondents i.e. (2.50 per cent) were graduates, 7 respondents i.e. (8.75 per

cent) were higher secondary qualified and 71 respondents i.e. (88.75 per cent) were matric qualified and none of the respondents were PG and above qualified.

Table 3: Education qualification of the respondents

Education qualification of the respondents				
Education Qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Graduation	2	2.50	2.50	2.50
Higher Secondary	7	8.75	8.75	11.25
Matric	71	88.75	88.75	100.0
Total	80	100.0	100.0	

Farming experience of the respondents: The Table 4 represents farming experience of the respondents. Out of 80 respondents, the 11 respondents i.e. (13.75 per cent) were having the farming experience of 10-20 years and 11 respondents i.e. (13.75 per cent) were having the farming experience of 20-30 years, followed by 58 respondents i.e. (72.50 per cent) were having the farming experience of more than 30 years.

Table 4: Farming experience of the respondents

Years of Experience				
Years	Frequency	Percent	Valid Percent	Cumulative Percent
10-20 years	11	13.75	13.75	13.75
20-30 years	11	13.75	13.75	27.50
More than 30 years	58	72.50	72.50	100.0
Total	80	100.0	100.0	

Land holdings of the respondents: The Table 5 represents land holdings of the respondents. Out of 80 respondents, the 9 respondents i.e. (11.25 per cent) were medium farmers (5-10acres and 9 respondents i.e. (11.25 per cent) were large farmers (more than 10acres), followed by 29 respondents i.e. (36.25 per cent) were small farmers (2.5-5acres) and 33 respondents i.e. (41.25 per cent) were marginal farmers (1-2.5acres)

Table 5: Land holdings of the respondent

Landholding of respondent				
Total Landholding	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Medium farmers (5-10acres)	9	11.25	11.25	11.25
Large farmers (more than 10acres)	9	11.25	11.25	22.50
Small farmers (2.5-5acres)	29	36.25	36.25	58.75
Marginal farmers(1-2.5acres)	33	41.25	41.25	100.0
Total	80	100.0	100.0	

Use of pesticides by the respondents: Table6 represents the use of pesticides by the respondents. Out of 80 respondents, all 80 respondents i.e. (100.00 per cent) said that they use the pesticides and none of the respondents said that they don't use pesticides.

Table 6: Use of pesticides by the respondents

Use of pesticides				
Utilisation of pesticides	Frequency	per cent	Valid Per cent	Cumulative Per cent
yes	80	100.00	100.00	100.00

Type of pesticides used by the respondents: Figure 7 and Table 7 represents the type of pesticides used by the respondents. Out of 80 respondents, 3 respondents i.e. (3.75 per cent) said that they used rodenticides whereas 7 respondents i.e. (8.75 per cent) said that they use fungicides, 9 respondents i.e. (11.25 per cent) used other kinds of pesticides, 23 respondents i.e. (28.75 per cent) used herbicides and 38 respondents i.e. (47.50 per cent) used insecticides.

Table 7: Type of Pesticides used by the respondents

Usage of Pesticides				
Pesticides Type	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Rodenticides	3	3.75	3.75	3.75
Fungicides	7	8.75	8.75	12.50
Others	9	11.25	11.25	23.75
Herbicides	23	28.75	28.75	52.50
Insecticides	38	47.50	47.50	100.0
Total	80	100.0	100.0	

Purchase of pesticides by the respondents: Table 8 represents the purchase of chemicals by the respondents. Out of 80 respondents, 10 respondents i.e. (12.50 per cent) said that they purchase pesticides other than local market & Govt. agencies and 25 respondents i.e. (31.25 per cent) said that they purchase pesticides from government agencies and 45 respondents i.e. (56.25 per cent) said that they purchase pesticides from local market.

Table 8: Purchase of pesticides by the respondents

Purchase of pesticides				
Source	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Govt. agencies	25	31.25	31.25	43.75
Local market	45	56.25	56.25	100.0
Other	10	12.50	12.50	12.50
Total	80	100.0	100.0	

Influence over buying decision regarding the purchase of pesticides: Table9 represents the influence over buying decision regarding the purchase of pesticides. Out of 80 respondents, the 9 respondents i.e. (11.25 per cent) said that they take buying decision other than given options, followed by 10 respondents i.e. (12.50 per cent) said that their buying decision is influenced by advertisements, followed by 15 respondents i.e. (18.75 per cent) said that their buying decision is influenced by their friends and relatives and 46 respondents i.e. (57.50 per cent) said that they take decision themselves.

Table 9: Influence over buying decision regarding the purchase of pesticides

Influence over buying decision regarding the purchase of pesticides		
Factors	Frequency	Percent
Advertisements	10	12.50
Friends & relatives	15	18.75
Self-decision	46	57.50
Other	9	11.25
Total	80	100.0

Money spent on pesticides for a particular season: Table 10 represents the money spent on pesticides by the Respondents. Out of 80 respondents, the 1 respondents i.e. (1.25 per cent) said that they spent below `500, followed by 3 respondents i.e. (3.75 per cent) said that they spent between `5000-10000, followed by the 6 respondents i.e. (7.50 per cent) said that they spent between `2000-5000 followed by 9 respondents i.e. (11.25 per cent) said that they spent more than `1000, 12 respondents i.e. (15.00 per cent) said that they spent between `500-1000 and 49 respondents i.e. (61.25 per cent) said that they spent between `1000-2000.

Table 10: Money spent on pesticides by respondents for a particular season

Total spending in rupees				
Money Spent (in `)	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Below 500	1	1.25	1.25	1.25
5000 -10000	3	3.75	3.75	5.00
2000-5000	6	7.50	7.50	12.50
More than 10000	9	11.25	11.25	23.75
500-1000	12	15.00	15.00	38.75
1000-2000	49	61.25	61.25	100.0
Total	80	100.0	100.0	

Pesticides brand/company preferred by the respondent: Table11 represents the pesticide brand/company preferred by the respondent. Out of 80 respondents, 3 respondents i.e. (3.75 per cent) said that they prefer to buy pesticides brand/company other than the given options, followed by 8 respondents i.e. (10.00 per cent) said that they prefer Dhanuka Agritech Ltd products, 10 respondents i.e. (12.50 per cent) said that they prefer to buy Insecticides India Ltd products, 12 respondents i.e. (15.00 per cent) preferred Syngenta India Ltd, whereas 15 respondents i.e. (18.75 per cent) preferred Akhil India Pvt Ltd, 15 respondents i.e. (18.75 per cent) preferred Bharat Rasayan Ltd and 17 respondents i.e. (21.25 per cent) preferred Bayer Crop Science Ltd.

Table 11: Pesticides brand/company preferred by the respondent

Pesticide Company				
Pesticides brand/ company	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Other	3	3.75	3.75	3.75
Dhanuka Agritech Ltd	8	10.00	10.00	13.75
Insecticides India Ltd	10	12.50	12.50	26.25
Syngenta India Ltd	12	15.00	15.00	41.25
Akhil India Pvt Ltd	15	18.75	18.75	60.00
Bharat Rasayan Ltd	15	18.75	18.75	78.75
Bayer Crop Science Ltd	17	21.25	21.25	100.0
Total	80	100.0	100.0	

Years of usage of pesticides by the respondent: Table 12 represents the years of usage of pesticide by the respondents. Out of 80 respondents, 23 respondents i.e. (28.75 per cent) said that they have been using pesticides between 5-10 years, whereas 26 respondents i.e. (32.50 per cent) said that they have been using pesticides between 10-20 years and 31 respondents i.e. (38.75 per cent) said that they have been using pesticides from more than 30 years.

Table 12: Years of usage of pesticides by the respondent

Years of usage				
Years of usage	Frequency	Per cent	Valid Per cent	Cumulative Per cent
5-10 years	23	28.75	28.75	28.75
10-20 years	26	32.50	32.50	61.25
More than 20 years	31	38.75	38.75	100.0
Total	80	100.0	100.0	

Availability of pesticides at right time as per the demand to the respondents: Table 13 represents the Availability of pesticides at right time as per the demand to the respondents. Out of 80 respondents, 4 respondents i.e. (5.00 per cent) said that the pesticides were never available for them at the right time as per their demand, 9 respondents i.e. (11.25 per cent) said that pesticides were sometimes available for them at the right time as per their demand. 27 respondents i.e. 33.75 per cent) said that the pesticides were most of the time available for them at the right time as per their demand, whereas 40 respondents i.e. (50.00 per cent) said that the pesticides were always available for them at the right time as per their demand.

Table 13: Availability of pesticides at right time as per the demand to the respondents

Availability of Pesticides				
Availability of Pesticides	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Never	4	5.00	5.00	5.00
Sometimes	9	11.25	11.25	16.25
Most of the time	27	33.75	33.75	50.00
Always	40	50.00	50.00	100.0
Total	80	100.0	100.0	

Purchase of pesticides by the respondents: Table14 represents the purchase of pesticides by the respondents. Out of 80 respondents, 9 respondents i.e. (11.25 per cent) said that they purchase pesticides from agriculture institution and 17 respondents i.e. (21.25 per cent) said that they purchase pesticides from cooperative society and 54 respondents i.e. (67.50 per cent) said that they purchase pesticides from retailer/ dealer.

Table 14: Purchase of pesticides by the respondents

Purchase of Pesticides				
Source	Frequency	Per cent	Valid Per cent	Cumulative Per cent
Agri institution	9	11.25	11.25	11.25
Cooperative society	17	21.25	21.25	32.50
Retailer & dealers	54	67.50	67.50	100.0
Total	80	100.0	100.0	

Reliability Analysis: The Table15 represents cronbach's alpha which shows the reliability of data. It tests to see if multiple questions or likert scale are reliable or not. The high level of cronbach's alpha value means that data is highly reliable. The minimum value of alpha is considered to be 0.6 (Naresh. K. Malhotra, 2015). The cronbach's alpha of the present study was 0.815, which shows high reliability of data.

Descriptive Statistics: According to data in the Table 16, the mean value for the items falling above 3 mean value indicates the inclination towards agreement statement whereas the items falling below 3 mean value

indicates the inclination towards disagreement statement. The mean score of the various factors ranging from 1,2,3,4,5,6,7,8,9,11,13,14,15,16,17 in table 16 was found as above 3 which means these items had inclination towards the agreement statement end whereas items 10,12 were having mean less than 3 which means these items had inclination towards the disagreement statement.

Table 15: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha (α)	No. of Items
0.815	17

Table 16: Descriptive Analysis: Factors influencing regarding the preference for buying pesticides

S. No	Factors	No.	Min	Max	Mean	Std. Deviation
1	I prefer pesticides because I get good quality yield.	80	3	5	4.89	0.450
2	I use pesticides because for high yield.	80	3	5	4.79	0.520
3	I use pesticides for controlling pest and diseases	80	1	5	4.55	0.980
4	The price of pesticides is affordable to me.	80	2	5	4.00	0.796
5	My Past experience was good.	80	2	5	3.89	1.114
6	I am satisfied with the packaging style.	80	2	5	3.71	1.009
7	Pesticides are available when needed.	80	2	5	3.53	1.055
8	Schemes and offers provided by companies are good.	80	1	5	3.11	1.180
9	I think pesticides are environmentally safe.	80	1	5	3.40	1.327
10	I prefer to buy pesticides of a particular brand only.	80	1	5	2.83	1.188
11	My dealer/retailer provides credit facility.	80	1	5	3.39	1.522
12	I prefer to buy pesticides because they offer trials and demonstrations.	80	1	5	2.92	1.474
13	I prefer to buy pesticides because they are easy to handle.	80	2	5	3.94	0.891
14	I am satisfied with the after sales services provided by the pesticide companies.	80	1	5	3.49	1.378
15	Advertisement influences me in buying of pesticides.	80	1	5	4.00	1.147
16	I am highly satisfied with the pesticides usage experience.	80	1	5	3.98	1.125
17	I only buy the certified pesticides.	80	2	5	4.31	0.880
Valid N		80				

Fig. 16 and Table 17 represents the factors influencing regarding the preference for buying pesticides. The average score was calculated by dividing the total score with 100. Then the factors having the highest average value were given the ranks as following, effective control and efficacy was ranked 1st, followed by discount and offers was 2nd rank, price was 3rd rank followed by dealer's recommendation, packaging, timely availability, brand image, credit availability, trials and demonstrations, after sales services, promotional campaign, safety were ranked 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th respectively.

Table 17: Factors influencing regarding the preference for buying pesticides

Factors	Average score	Percentage	Rank
Effective control and efficacy	7653	76.53	1
Discount and offers	7165	71.65	2
Price	71.5	71.50	3
Dealer's recommendation	712	71.20	4
Packaging	7102	71.02	5
Timely availability	7075	70.75	6
Brand image	7042	70.42	7
Credit availability	7023	70.23	8
Trials and demonstrations	6985	69.85	9
After sales services	6956	69.56	10
Promotional campaign	6938	69.38	11
Safety	6786	67.86	12

Factors Influencing regarding the preference for buying pesticides: Table 18 represents the factors influencing regarding the preference for buying pesticides, the average score was calculated by dividing the total score with 100. Then the factors having the highest average value were given the ranks as following. The price was ranked 1st, storage was ranked 2nd, followed by availability, problematic in application, poor performance were ranked 3rd, 4th and 5th respectively.

Table 18: Factors influencing regarding the preference for buying pesticides

Factors	Average score	Percentage	Rank
Price	6737	67.37	1
Storage	6312	63.12	2
Availability	6231	62.31	3
Problematic in application	5893	58.93	4
Poor performance	5587	55.87	5

CONCLUSION

The research showed that the maximum number of respondents i.e. (57.50 per cent) said that they take buying decision of pesticides by themselves, followed by (18.75 per cent) said that their buying decision is influenced by their friends & relatives. The maximum number of the respondents i.e. (61.25 per cent) said that they spent between 1000- 2000 for the purchase of pesticides during a year followed by 12 respondents i.e. (15.00 per cent) said that they spent between 500-1000 for the purchase of pesticides during a year. Most of the farmers i.e. (56.25 per cent) preferred purchasing of pesticides from local market followed by (31.25 per cent) preferred to purchase from Govt. Agencies. It was also found that maximum respondents preferred Bayer Crop Science Ltd. the most i.e. (21.25 per cent) followed by Bharat Rasayan Ltd. i.e. (18.80 per cent) and Akhil India Pvt Ltd. i.e. (18.75 per cent). The study also revealed that farmers generally opt to purchase pesticides from retailers and dealers i.e. (67.50 per cent) followed by cooperative society i.e. (21.25 per cent). The study also revealed the factors influencing regarding the preference of buying of pesticides. By using Garrett's ranking technique, effective control and efficacy was ranked 1 among all the other factors followed by discount and offer followed by price which was ranked 2nd, 3rd respectively. The respondents always kept price factor in mind while purchasing pesticides, followed by storage and availability which was ranked 2nd and 3rd respectively.

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