

A STUDY ON MARKETING OF SELECTIVE HERBICIDE IN KURUKSHETRA DISTRICT OF HARYANA

Abstract:

Herbicides are a type of pesticide used to control or eliminate unwanted plants, commonly known as weeds. Herbicides work by disrupting various physiological processes in plants, including photosynthesis, cellular respiration, and cell division. One of the main advantages of herbicides is their effectiveness in controlling weeds and improving crop yields. There are two marketing channels involved in marketing of Calaris Xtra in Kurukshetra district of Haryana out of which channel 2 (Producer-Wholesaler-Retailer-Consumer) is preferred over channel 1 (Producer-Wholesaler-Consumer). Eventually the selling price of the Calaris Xtra to the consumers was Rs.1300/ 700ml bottle. Eventually, the total marketing margin in channel 1 is Rs.250 the marketing cost was Rs.54, the marketing efficiency was 4.27%. and price spread in channel 1 is Rs 104 and in channel 2, the total marketing cost was Rs.71 ,total marketing margin in channel 2 is Rs. 283 the marketing efficiency is 3.89% and price spread seen in channel 2 is Rs 184. The constraint in marketing Calaris Xtra herbicide with High cost of transportation with 30 respondents response ranked I, followed by Storage Problems with 20 respondents response ranked II, followed by High prices with 18 respondents response ranked III, followed by Shortage of trading with 16 respondents response ranked IV, followed by delayed sale with 11 respondents response ranked V, followed by price fluctuation with 5 respondents response ranked VI.

Key words: Herbicides, Management, Marketing

Introduction:

The history of herbicides dates back to ancient times, where early civilizations used salt, vinegar, and other natural substances to control weed growth. In the 20th century, the development of synthetic herbicides revolutionized weed management in agriculture, leading to higher crop

yields and increased food production. Today, herbicides continue to be a vital tool in modern agriculture and landscaping practices. Herbicides work by disrupting various physiological processes in plants, including photosynthesis, cellular respiration, and cell division. There are three main categories of herbicides: contact, systemic, and pre-emergent. Contact herbicides kill only the parts of the plant they come into direct contact with, while systemic herbicides are absorbed by the plant and transported throughout the plant's tissue, killing it from the roots up. Pre-emergent herbicides are applied before weed seeds germinate and prevent them from sprouting. Selective herbicides target specific types of plants, while non-selective herbicides kill all plants they come into contact with. For example, glyphosate, a popular non-selective herbicide, is used in agriculture and landscaping to control weeds in fields, pastures, and along roadsides. Other common herbicides include atrazine, 2,4-D, and dicamba, which are used in a variety of agricultural settings to control broadleaf weeds and grasses. One of the main advantages of herbicides is their effectiveness in controlling weeds and improving crop yields. By reducing weed competition for nutrients, water, and sunlight, herbicides allow crops to grow more vigorously and produce higher yields. Additionally, the use of herbicides can reduce labor costs associated with manual weed control and reduce the need for mechanical cultivation, which can be damaging to soil health.

Research and Methodology

1. Selection of District:

There are 22 District in Haryana state and district name Panchkula, Ambala, Yamunanagar, Kurukshetra, Karnal, Kaithal, Jind, Fatehabad, Hisar, Sonapat, Rohtak, Bhiwani, Jhajjar, Gurgaon, Mahendranagar, Mewat, Rawari, Sirsa, Faridabad, Panipat, Charkhi Dari, Palwal. Out of these, Kurukshetra District of Haryana was selected purposively on the basis of maximum area under sugarcane cultivation.

2. Selection of Block:

There are 7 block in the district. Out of these Ladwa was selected purposively for the study. The agro condition of the block is suitable for the Sugarcane cultivation. The farmers of this block have been growing the Sugarcane for several years.

3. Selections of Villages:

There are total 59 villages in Ladwa block obtained from the block development office. Thereafter these villages were arranged in order on the basis of area of land holding. Thus out of total villages 5% villages was selected randomly for the present study.

4. Selection of Respondents

From the selected village list of all Soyabean cultivating farmers was obtained from the block development office in each selected village. Ascending order on the basis of size of their landholding the selection of cultivators from families was listed and 120 farmers was randomly selected from the entire village.

5: Selection of Market and Market Functionaries:

5.1 Market: Two types of market were selected purposively for the study:

Primary market: The primary market (Ladwa market etc.) was selected purposively.

Secondary market: Ladwa market was selected purposively.

5.2 Market Functionaries

The market functionaries were considered for data collection regarding and other marketing charges in different marketing channel list of all market functionaries was prepared with the help of primary and secondary market offices then out of total number of market functionaries like 5 wholesalers, 7 retailers, 13 Consumer etc., market functionaries were selected purposively for present study.

Analytical Tools:

Chi Square: Chi-square is a statistical test used to examine the differences between categorical variables from a random sample in order to judge goodness of fit between expected and observed results.

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Marketing cost:

The total cost incurred on marketing by various intermediaries involve in the sale and Purchase of the commodity

$$C=CF+Cm1+Cm2+Cm3..... +Cmn$$

Price Spread:

Price spread is defined as the difference between the price paid by consumers and the net price received by the producer

$$\text{Price Spread} = (\text{Consumer price} - \text{Net Price of Producer})$$

Garret Ranking:

To know the acceptance of respondents and constraints in processing and marketing of Herbicide products Garrett's ranking technique has been used. Garrett's formula for converting ranks into per cent was given by,

$$\text{Per cent position} = 100 (R_{ij} - 0.5) / N_j$$

Results and Discussion:

1. To studies the socio – economic profile of the respondent in the study area.

Table1. Distribution of farmer according to farm size

S. No.	Categories(members)	Respondent	
		Number	Percentage
1.	Marginal (< 1.00 hectare)	30	30.00
2.	Small Farmers (1.00-2.00 hectare)	23	23.00
3.	Semi Medium Farmer (2.00-4.00)	18	18.00
4.	Medium Farmers (4.00-10.00 hectare)	15	15.00
5.	Large Farmers (Above 10.00 hectare)	14	14.00
Total		120	100.00

Table1. Out of the total, 100 respondents 30 respondents were having marginal size farm, 23 were having small size farm, 18 were having semi medium size farm, 15 were having medium size farm and remaining 14 were having large size farm.

Table2. Distribution of respondents based on their age

S. No.	Categories	Respondents Number	Respondents					Percentage
			Marginal	Small	Semi medium	Medium	Large	
1.	Young age group (20-35 years)	60	21	11	11	9	8	60.00
2.	Middle age group (36-50 years)	30	6	10	5	5	4	30.00
3.	Old age group (above 50 years)	10	3	2	2	1	2	10.00
	Total	100	30	23	18	15	14	100.00

Table2. From this Table it can be concluded that 60 (60.00 %) respondents are in the young age group of 20- 35, 30 (30.00%) respondents are in the middle age group of 36-50, 10 (10.00%) respondent are in old age of above 50. Therefore, the majority of respondents are in the young age group of 20-35.

Table3: Distribution of respondents based on their age.

S. No.	Categories	Respondents Number	Respondents					Percentage
			Marginal	Small	Semi small	Medium	Large	
1.	Primary School	17	6	2	4	3	2	17.00
2.	Junior high school	10	3	3	1	1	2	10.00
3.	High school	12	2	4	3	2	1	12.00
4.	Intermediate	11	3	2	2	3	1	11.00
5.	Graduate	1	0	0	0	1	0	01.00
A.	Total literate	51	14	11	10	10	6	51.00
6.	illiterate	49	16	12	8	5	8	49.00
	total	100	30	23	18	15	14	100.00

Table3. The highest number of respondents were educated till primary school that is 17 (17.00%), followed by respondents were educated till high school that is 12 (12.00%), followed by respondents were educated till intermediate that is 11 (11.00%), followed by respondents were educated till Junior high school that is 10 (10.00%) followed by respondents were educated till graduation that is 1 (1.00%). Thus total literate found in the study area is 51 (51.00%).

Table4: Distribution of respondents according to their gender.

S. No.	Category	Respondents number	respondents					Percentage
			Marginal	Small	Semi medium	Medium	Large	
1.	Male	86	27	21	15	13	10	86.00
2.	female	14	3	2	3	2	4	14.00
Total		100	30	23	18	15	14	100.00

Table4. As gender affects the buying decision, it has an essential association in market-related research. Due to the distinction in their perception and socialization, men and females tend to have distinct conclusions while buying. Out of the total, 100 respondents 86 respondents were male, that is 86.00% while the remaining 14 were female that is 14.00% of total sample.

Table5. Distribution of respondents according to their caste category

S. No.	Category	Respondents number	respondents					Percentage
			Marginal	Small	Semi medium	Medium	Large	
1.	General	49	16	11	9	6	7	49.00
2.	OBC	30	8	8	5	5	4	30.00
3.	SC/ST	21	6	4	4	4	3	21.00
Total		100	30	23	18	15	14	100.00

Table5. As caste affects the buying decision, it has an essential association in market-related research. Due to the distinction in their perception and socialization, Caste Category tend to have distinct conclusions while buying. Out of the total, 100 respondents 49 respondents were belonging to general category that is 49.00%, followed by 30 where OBC that is 30.00% while the remaining 21 were SC/ST that is 21.00% of total sample.

Table6: Distribution of respondents according to their Family type.

S. No.	Category	Respondents number	Respondents					Percentage
			Marginal	Small	Semi medium	Medium	Large	
1.	Nuclear	90	29	22	15	13	11	90.00
2.	Joint	10	1	1	3	2	3	10.00

Total	100	30	23	18	15	14	100.00
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Table6. As family affects the buying decision, it has an essential association in market-related research. Due to the distinction in their perception and socialization, joint family and nuclear family tend to have distinct conclusions while buying. Out of the total, 100 respondents 90 respondents were living in nuclear family and 10 were living in joint family.

Table7: Distribution of respondents according to their religion.

S. No.	Category	Respondents number	respondents					Percentage
			Marginal	Small	Semi medium	Medium	Large	
1.	Hindu	70	22	16	10	11	11	70.00
2.	Muslim	20	5	5	7	1	2	20.00
3.	Christian	10	3	2	1	3	1	10.00
Total		100	30	23	18	15	14	100.00

Table7. As religion affects the buying decision, it has an essential association in market-related research. Due to the distinction in their perception and socialization, relation tend to have distinct conclusions while buying. Out of the total, 100 respondents 70 respondents were Hindu ,that is 70.00, 20 of them belongs to Muslim that is 20.00 while the remaining 10 were Christian that is 10.00 of total sample.

2. To find out different marketing channels involved in marketing of Calaris xtra.

Table 8: Reveals the preferred marketing channel by the respondent farmers.

S. No.	Channel type	No. of Respondents	Percentage
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1.	Channel - I	15	15.00
2.	Channel - II	85	85.00
Total		100	100.00

Table8. reveals during the study that among 100 sample 15(15.00%) were preferring channel 1 to buy and sell Calaris Xtra through channel 1, and left 85 (85.00%) respondents were preferring channel -2 to buy or sell Calaris Xtra in the study area.

SUGGESTIONS:

- Field staff should be well educated and having good sense of humour and sharp mind. •
Number of staff should be enough for each level of work.
- Strategy should be made to fulfill all the recommendation of farmers.
- Field staff should keep in mind that our consumers are the giver.
- Company should give the appraisal to the staff for their good works.
- Field work is the most necessary part and it should be done with great potential.
- Company should also focus on medium and small land holding farmers to make its grip strong in the market.
- Quality of products, its packaging supply should be good.

Conclusion:

During the present study it has been revealed that in farm size category it was seen that maximum of the farmer lies in marginal size farm category followed by small farm size, followed by semi-medium size farm category, medium farm size category, and lastly large farm size category. In age category it is seen that maximum of respondents are in young age category followed by middle group age and lastly old age group . In education category it had been seen that of total respondents are illiterate 49 and left 51 were literate in different categories. In gender category it had been seen that 86 were male among all respondents and 14 were female. In caste category it has been noticed that maximum of respondents were belonging to general category followed by OBC with SC/ST. In family type it has been noticed that 90 of total respondents were living in nuclear family and left 10 were living in joint family. In religion

category it has been noticed that maximum were Hindu followed by Muslim and lastly in Christian. There are two marketing channel involved in marketing of Calaris Xtra in Kurukshetra district of Haryana out of which channel 2(Producer-Wholesaler-Retailer - Consumer) is preferred over channel 1(Producer-Wholesaler-Consumer).Eventually the selling price of the Calaris Xtra to the consumers was Rs.1300/ 700ml bottle. Eventually, the total marketing margin in channel 1 is Rs.250 the marketing cost was Rs.54, the marketing efficiency was 4.27%. and price spread in channel 1 is Rs 104 and in channel 2, the total marketing cost was Rs.71 ,total marketing margin in channel 2 is Rs. 283 the marketing efficiency is 3.89% and price spread seen in channel 2 is Rs 184. The constraint in marketing Calaris Xtra herbicide with High cost of transportation with 30 respondents response ranked I, followed by Storage Problems with 20 respondents response ranked II, followed by High prices with 18 respondents response ranked III, followed by Shortage of trading with 16 respondents response ranked IV, followed by delayed sale with 11 respondents response ranked V, followed by price fluctuation with 5 respondents response ranked VI.

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