Swami Vivekananda Advanced Journal for Research and Studies
Online Copy of Document Available on: www.svajrs.com

ISSN:2584-105X **Pg. 254-256**

The Existing marketing channel, Market share and Cost margin , Constraints in marketing of Plethora Insecticide

Akshay Kumar
Research scholar (P.G.) Department of Agriculture economics, SHUATS, Naini, Prayagraj, 211007
Dr. Amit kumar, Dr. Mukesh kumar Maurya, Dr. Ameesh John, Dr. Pritesh Dwivedi
Assistant professor, Department of Agriculture economics, SHUATS, Naini, Prayagraj, 211007

Accepted: 22/08/2025
Published: 30/08/2025

Abstract

Agriculture remains the backbone of India's economy, with insecticides playing a vital role in sustaining productivity. This study analyzes the marketing of Plethora Insecticide (Novaluron 5.25% + Indoxacarb 4.5%) in Khagaria District, Bihar, a region prominent in maize cultivation. Using a multistage stratified random sampling approach, data were collected from farmers and market functionaries through interviews and analyzed using Chi-Square tests, Garrett's ranking, and efficiency measures. Results show that most respondents were marginal and small farmers (53.62%), primarily young (63.63%), male (81.82%), and from low-income groups, with 37.27% earning below 1 lakh INR annually. Two marketing channels were identified, with Channel II (Producer–Wholesaler–Retailer–Consumer) being preferred by 83% of farmers and showing higher marketing efficiency (3.15%) than Channel I (2.56%). Major constraints included high transportation costs, shortage of trading, and price fluctuations. The study suggests strengthening retail networks and addressing logistical issues to improve marketing effectiveness and farmer access.

Keywords*: Marketing Channels, Market Share, Cost and Margin Analysis, Insecticide Marketing Constraints, Plethora Insecticide (Novaluron + Indoxacarb)*

Introduction

Agriculture plays a pivotal role in the global economy, particularly in developing nations where it is the primary source of livelihood for millions. In countries like India, agriculture is not only the backbone of the economy but also a critical sector for food security. As agricultural productivity continues to be under pressure due to the increasing prevalence of pest infestations, the use of insecticides has become a crucial component of modern farming practices. Among these, synthetic insecticides such as ***Plethora*****,** a combination of **Novaluron 5.25% and Indoxacarb 4.5%,** are widely used to combat lepidopteran pests and improve crop yields.

This research delves into the marketing strategies of **Plethora Insecticide** in **Khagaria District** of **Bihar**, an area renowned for its maize production. The study aims to understand how farmers in this region are adopting Plethora, evaluate their awareness levels, and analyze the effectiveness of different marketing channels. Given the region's dependency on agriculture, this study also highlights the role of insecticide marketing in shaping the livelihoods of farmers.

By examining the **marketing costs**, **margins**, **efficiencies**, and **price spread** across various channels, the research provides a comprehensive view of the challenges and opportunities within this sector. Furthermore, the findings could offer valuable insights for agricultural policymakers and companies like **Adama Pvt. Ltd.**, which aim to improve their outreach, educate farmers, and foster sustainable agricultural practices.

Research Methodology

The study was conducted in **Khagaria District, Bihar** during the 2023-2024 agricultural year, focusing on the marketing of *Plethora Insecticide*. A **multistage stratified random sampling** method was used to select **maize farmers** based on farm size and socio-economic factors. **5% of villages** in the **Gogri block** were randomly selected, with **10% of farmers** chosen from each village.

Primary data was collected through personal interviews with farmers and market functionaries, while **secondary data** was obtained from government records and reports. Data analysis included the use of **Chi-Square tests** for socio-economic relationships and **Garrett's Ranking** for purchasing factors. **Marketing efficiency** was assessed using marketing cost, margin, and price spread calculations.

Results and Discussions

1.Marketing Channels

The study identified two main marketing channels for Plethora Insecticide:

- **Channel I**: Producer → Wholesaler → Consumer
- **Channel II**: Producer → Wholesaler → Retailer → Consumer

Table presents the distribution of respondents based on their preferred marketing channels. The majority preferred **Channel II**, where Plethora passes through both wholesalers and retailers before reaching the consumer.

S. No.	CHANNEL	Respondents Number	Percentage
1.	Channel 1	17	17%
2.	Channel 2	83	83%

2.Marketing Cost, Margin, and Efficiency

The study assessed the efficiency of both marketing channels, calculating marketing costs, margins, and price spreads. Channel II was found to have a higher **marketing efficiency** (3.15%) compared to Channel I (2.56%).

Metric	Channel 1	Channel 2
Price of consumer	Rs 250	Rs 253
Total marketing cost	Rs 42.5	Rs 50.5
Marketing margin	Rs 55	Rs 66
Marketing efficiancy	2.56%	3.15%
Price spread	Rs 97.5	Rs 99.5

3.Constraints in Marketing

Table summarizes the main constraints identified in the marketing of Plethora Insecticide. **High transportation costs** and **shortage of trading** were found to be the most significant issues, as reported by the majority of respondents.

Constrains	Number of respondent	Rank

High cost of transportation	35	I
Shortage of trading	19	II
Price fluctuations	16	III
High prices	14	IV
Shortage problem	15	V
Delayed sales	12	VI

Discussion

The results reveal several key insights into the marketing of Plethora Insecticide:

- **Socio-Economic Factors**: The majority of respondents were from marginal and small farm sizes, predominantly young and male, with low annual incomes. This suggests that marketing strategies should be tailored to younger, economically weaker farmer segments.
- **Marketing Channels**: **Channel II**, involving both wholesalers and retailers, was preferred by a larger proportion of farmers. This indicates that farmers trust local retailers for access to products, highlighting the importance of strengthening the retail network.
- **Marketing Efficiency**: Channel II exhibited higher marketing efficiency and margins, although it also incurred higher costs. This suggests that while it is more profitable for intermediaries, it might be less cost-effective for the producers.
- **Constraints**: High transportation costs were the leading constraint, followed by a shortage of trading. These logistical challenges must be addressed to enhance the overall efficiency of insecticide distribution in the region.

Summary of References

Vedani and Gracy (2015): This study explores farmers' purchasing behavior of agricultural inputs, focusing on price sensitivity. Cooperative societies were identified as the preferred source for agricultural inputs due to favorable pricing and credit facilities. Quality and brand reputation were secondary considerations.

Singh and Mathur (2017): This research highlights the low monthly income of farmers, which affects their ability to purchase recommended insecticides. It also discusses the widespread use of banned insecticides due to a lack of awareness about newer, safer options.

Leonard P. Gianessi (2017): Insecticide adoption is rising globally, especially in developing countries. The study suggests that insecticides are more affordable and accessible than manual weeding, making them an increasingly popular choice for pest control in areas experiencing labor shortages.

Abhay (2018): This study examines the factors influencing farmers' insecticide choices. It finds that brand loyalty is weak, with farmers often prioritizing price over product quality. Recommendations from peers and advertising are influential in the decision-making process.

****