

Information Source Utilization by the IPM and Non-IPM Farmers for Pesticide Use

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Abstract: *The main objective of this study is to analysis the information seeking behaviour of the farmers about the pesticide use. In this study, 240 IPM trained farmer families and 100 non-IPM farm families were selected by applying random sampling technique. Thus, the total sample size was 340 (170 from Jammu and 170 from Punjab). The IPM and non-IPM farmers of Jammu and Punjab mostly depended upon pesticide dealers followed by their own farming experience, and progressive / co-farmers regarding information about pesticides. Both the IPM and non-IPM farmers of Jammu depends more on the department of agriculture regarding information about pesticide than the IPM and non-IPM farmers of Punjab.*

Keywords: Information, Pesticide, Farming experience and Department of Agriculture

1. Introduction

Information has an extensive and multidimensional role in agriculture. It empowers farmers to respond to different types of risk, market incentives, and competition more efficiently. Agricultural extension plays an important role in information and technology transfer (Fan & Hazell, 1999; Mittal & Kumar, 2000). However, agricultural extension systems-especially those that are state-managed have limited outreach. This is because of shortages of trained personnel, rising dissemination costs, and the need for rapid response to changing climate and markets (Economic Survey, 2011). Along with the public extension services, farmers access information from a variety of other sources. These sources can be divided into formal and informal information networks. The informal networks constitute face-to-face interactions with friends, relatives, other farmers, and extension agents among others. On the other hand, formal sources refer to information that is created specifically for farmers through media such as radio and television-based agricultural programs, and mobile based information services. Farmers use a combination of these formal and informal modes of accessing information simultaneously, for different information. This need or demand will vary across regions, crops and farmers, and landholding. Studies have shown that most farmers have access to a variety of traditional information sources (television, radio, newspapers, other farmers, government agricultural extension services, traders, input dealers, seed companies, and relatives), which they regularly access for agricultural information (Mittal & Kumar, 2000 and Sarvanan, 2011). These traditional sources have been an important tool for several decades now. The paper highlights the source of information used by the IPM and non-IPM farmers regarding chemical pesticide use. This includes information on plant protection that is most prominent. For this information, the farmers usually inquire from other farmers and input dealers.

2. Material and Methods

The sub-tropics of the Jammu region and Punjab were selected for drawing the sample of the villages. Under the

IPM-FFS, the Central Integrated Pest Management Centres (CIPMCs) of Jammu and Punjab have covered 71 villages from 2011 to 2020 (Jammu 35 and Punjab 36) representing under rice IPM programme. Out of 30 IPM-FFS farmers trained in each village, a sample of 10 trained farmers was selected from each village by applying a random sampling technique. Total sample of IPM-FFS farmers was 240 (120 from Jammu and 120 from Punjab). For control, 10 non-IPM-FFS villages were selected purposively and out of each village, 10 non-IPM rice growers were selected randomly from list of rice growers prepared in each village. Total sample of non-IPM farmers was 100 (50 from Jammu and 50 from Punjab). Total sample size was 340 rice farmers, 240 IPM-FFS trained farmers and 100 non-IPM farmers. A semi-structured interview schedule was prepared. Data were collected in two phases in 2020-2021 under the Covid-19 pandemic restriction by using the personal interview method. The respondents were interviewed either at their homes or at community places, or at their farms and their responses were recorded on the spot.

3. Results and Discussion

A majority 98 per cent of the IPM farmers of Jammu and Punjab and 100 per cent and 98 per cent of the non-IPM farmers of Jammu and Punjab depended on the pesticide retailer regarding information about herbicides. More than 50 per cent of the IPM and non-IPM farmers of Punjab, whereas in case of Jammu 17 per cent of the IPM farmers and 22 per cent of the non-IPM farmers depended on pesticide company employee / pesticide shop owner regarding information about herbicide. Hundred per cent of IPM and non-IPM farmers of Jammu and Punjab depend upon the pesticide retailers as a source of information about pesticides followed by own experience, progressive/co-farmers, pesticide company employee and department of agriculture office. In Jammu the difference among the farmers were significant ($z=3.60$, $p=0.003$) in case of progressive/co-farmers. (Table 1). The IPM and non-IPM farmers of Jammu and Punjab mostly depended upon pesticide dealers followed by their own experience, and progressive / co – farmers regarding information about pesticides.

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Table 1: Sources of information about pesticides (%farmer)

Source	Jammu			Punjab		
	IPM (n=120)	Non-IPM (n=50)	Diff. (1-2)	IPM (n=120)	Non-IPM (n=50)	Diff. (3-4)
Department of Agricultural University scientist/ KVKs	76	70	6	39	32	7
Pesticide retailer	0	0	0	16	10	6
Package of practices	100	100	0	100	100	0
Own experience	5	0	5	8	6	2
Progressive /co-farmers	96	94	2	98	98	0
Pesticide company employee	78	54	24*	78	66	12
Social media/ WhatsApp	13	20	- 7	45	46	- 1
Mass media (Radio, T. V, Newspaper etc)	0	4	- 4	8	4	4
	7	4	3	4	2	2

* Significant at $p < 0.005$. Figures corresponding to percentages have been rounded up to nearest whole number.

4. Conclusion

The purpose of the study is to understand how farmers use information sources regarding information about pesticides. The study shows that primary source of information about pesticide was pesticide dealer from where pesticide was purchased.

References

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