**ABSTRACT**

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| **Title of the thesis** | **: Pesticide Retailers’ Knowledge About Pesticide Recommendations And Human Health Hazard** |
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**Abstract**

Pesticides are crucial input for crop protection. However, overreliance and misuse of pesticides have caused many problems. The majority of studies on pesticide misuse in developing nations have been conducted at the farmers’ level, with the assumption that farmers bear the primary responsibility for pesticide misuse. However, numerous studies reveal that pesticide retailers are the primary information source for farmers. Their source of information must be correct and reliable so that farmers get accurate information regarding pesticides and their use. To find out, if farmers are getting the right information regarding pesticides and their use, a study “Pesticide retailers’ knowledge about pesticide recommendations and human health hazards” was carried out by employing non-experimental descriptive research. Out of 482 pesticide retailers in the Jammu and Samba districts, 150 pesticide retailers were selected from both districts, and a sample of 100 farmers was selected from the adjoining area of the sampled pesticide retailers. The results revealed that farmers' primary sources of information were pesticide retailers (72 -73% in wheat and rice crops respectively). Ninety per cent of the pesticide retailers knew about storing solid and liquid pesticides separately. Pesticide retailers had sound knowledge about using gloves (99%) while handling the pesticide. Most of them (74%) had recommended bispyribac sodium 10% SC herbicide against *Cyperus iria*, *Echinochloa crus*-*galli, Sphenoclea zeylanica, Fimbristylis miliacea and Echinocloa colonum* in rice crop and 65 per cent of the pesticide retailer recommended clodinofop-propargyl 15% WP herbicide against *Phalaris minor, Medicago denticulata, Avena fatua* and *Rumex dentatus* in wheat crop. Most of the pesticide retailers recommended fungicide in wheat crop was propiconazole 25% EC (54%) against yellow rust, tebuconazole 25.9% EC was recommended against bacterial leaf blight of rice crop, which is not recommended fungicide against the said disease. Twenty per cent of pesticide retailers recommended chloropyriphos 50%+cypermethrin 5% EC against stem borer, leafhopper, leaf folder and grasshopper in rice crop and 4 per cent of pesticide retailers recommended chloropyriphos 10 % GR against termite and aphids, in wheat crop. Pesticide retailers (48%) had a medium level of knowledge about pests, recommended pesticides and dosages. Overall, the perception index of the pesticide retailers and farmers related to human health hazards and use was 0.93 and 089. The finding of the study revealed, that pesticide retailers face problems due to competitive market conditions, and they did not have good knowledge regarding pesticide recommendations. It was also observed, that although a greater number of pesticide retailers possessed the required educational qualifications, this did not necessarily translate into an adequate level of knowledge about pesticides and their use. Many of these retailers recommended either higher or lower doses of pesticides. There should be a regulation for displaying pests and recommended pesticides at the pesticide outlets to help farmers make informed decisions.

**Keywords:**Pest, Pesticides, Pesticide retailer, Pesticide recommendation, Knowledge, Human health hazards, Pesticidestorage and handling.

**Signature of Major Advisor Signature of theStudent**