

Application of Pesticides in Rice-prawn (Crustaceans) Culture: Perception and Its Impacts

ABSTRACT

The general purpose of this study was to evaluate farmers' awareness towards the pesticides used in rice-prawn integrated culture technique. Randomly selected survey technique was applied through direct observations and personal interviews for this study. Data were collected from five different upazillas viz. Fultola and Dumuria of Khulna, Mollahat, Fokirhat and Chitolmari of Bagerhat district which were situated in the south-west region in Bangladesh from January to March 2011. Randomly selected survey technique was applied to collect information from sample farmers which were chosen by consultation with local Agriculture Extension Officer and Fisheries Officer. A total of 75 (45 from Bagerhat and 30 from Khulna) sample farmers were asked to mention various information. Eight active ingredients of pesticides within 28 trade names were used to kill pest such as the stem borers, green leafhoppers and some of grasshoppers and gall midges infesting the rice farms. Pesticide frequency was varied between 1 and 3 sprays per crop season. A total of 94% respondents applied pesticides for controlling pests, 5% respondents used biological control and 1% respondent did not use any technique for pest management. The pesticide groups Organophosphorus and carbamate were used by 40% and 38% of the respondents respectively and another 15% farmers used pyrethroid in their rice crop during the winter period. Various groups of pesticides were used in order of 36% for Carbofuran, 17% for Chloropyriphos, 12% for Malathion, 11% for Diazinon, 7% for Cyhalotrin, 3% for Carbosulfan, 1% for Thiomax and 7% for Cypermethrin, respectively of the respondent farmers. No banned pesticides were identified from the respondents during this survey. It is suggested that pesticides regulation and effective implementation, increasing farmer's awareness of effective pesticide use and expansion of IPM (Integrated Pest Management) practices can be helped towards sustainable integrated rice-prawn culture in the part of Bangladesh.