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Knowledge level of farmers about recommended fish production technology

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Abstract

A study on the farmer's knowledge regarding fish cultivation practices has carried out in Darbhanga districts of Bihar states during 2016-17. The findings revealed that (60.00%) of respondents had medium level of knowledge on the recommended package of practices of fish production, followed by 23.33 per cent with low knowledge level and 16.67 per cent with high knowledge level. Illiteracy of the farmers, low sociability, low extension contact, medium mass media exposure and scientific orientation could be attributed for observing this trend. Hence, the policy makers and administration including extension system need to put concerted efforts to make the farmers more knowledgeable through different information sources and also by conducting training programmes systematically. Almost cent per cent of the fish growers had complete knowledge in time of growing followed by in marketing (100%), harvesting (93.33%), sampling (85.00%). While 83.33% of the fish growers had knowledge in pond preparation, followed by quality seed, species and stocking density (76.67%), insect and disease management (73.33%), pond construction (68.33%), water quality (66.67%). Feed and fertilizer management of fish production (56.67%), and soil type (53.33%).

Keywords: feed and fertilizer, Insect and disease, quality seed

Introduction

Fish has long been an important source of food for people all over the world. The importance of fish as a source of high quality, balanced and easily digestible proteins is well understood. It has also occupied an important place in the global market as a safe and cheap source of animal protein with high consumer acceptability. Fish production in India has increased more than tenfold since independence in 1947. India stands second in global fish production as well as it also ranks second in world in Inland capture and aquaculture sectors. Despite rapid growth in total fish production, a fish farmers' average annual production in India is only 2 tones per person, compared to 172 tones in Norway, 72 tones in Chile, and 6 tones per fisherman in China. Higher productivity, knowledge transfer for sustainable fishing, continued growth in fish production with increase in fish exports have the potential for increasing the living standards of Indian fisher folks. As of 2010, fish harvest distribution was difficult within India because of poor rural road infrastructure, lack of cold storage and absence of organized retail in most parts of the country. Looking the importance of fish production in Bihar and in study area concerted efforts are needed to put aquaculture on to a higher growth trajectory while at the same time ensuring conformity with the norms of sustainability and equity. Major highlights of the future strategy would include for example: value chain approach for fishing high value species. In paying attention to open water fisheries management due recognition also is needed of the potentials of inland aquatic resources, habitat restoration and fish conservation in inland ecosystems, water management including pollution management, bioremediation and multiple use of waters. The annual fish production of the State during 2014-15, both from aquaculture and capture fisheries, has been estimated at 4.79 lakh tons against a demand of approximately 5.86 lakh tons. Evidently, there exists a wide gap between demand and supply, to the tune of 18.30%, which is quite paradoxical in view of the vast fisheries resources in the State. The unmet demand is partly met from supply of fish from other States. Similarly, the annual demand of fish seed in the State is over 760 million, while the production is only about 481 million from the 121 government fish seed farms, 2 government hatcheries, and 83 private hatcheries. The problems in production include non-availability of quality fish seeds, Lack of natural feed in pond, etc., have threatened the cultivation of fish.

Hence, the present study is intended to address the specific objectives to measure the knowledge level of fish growers about recommended practices in fish cultivation.

Research Methodology

The study was conducted in Darbhanga district of Bihar. Darbhanga district was purposively selected for the studies because of the following reasons are:- a) The district is predominantly fish growing. b) There are a lot of ponds, rivers and other reservoirs is source of fish production and many fishing community involved in production. c) The district needs a support of technological back stopping for increasing its productivity. There are 18 block in Darbhanga district. Out of 18 blocks, two blocks were selected on the basis of fish pond area figure. Jale and Keoti blocks were selected randomly for study purpose. 30 fish growers were taken from each of the selected blocks. Thus, a total number of 60 fish growers were constituted as the sample size for the present study. For collection of relevant data, a personal interview schedule was specially structured and prepared in order to get the desire response of farmers in face to face situation. The interview schedule constituted 43 knowledge questions. The answers to the questions were quantified by giving one score to correct answer and zero score to the incorrect answer. The summation of scores for the correct answer for a particular respondent indicates his knowledge level about recommended practices of fish cultivation. The respondents were grouped into low, medium and high categories using mean and standard deviation as measures. The data were also analyzed using other various statistical tools such as frequency, percentage, mean score and ranking.

Findings and Discussions

The results of the present study as well as relevant discussions have been presented under following sub heads:

Overall knowledge level of fish growers about improved management practices

The scores of knowledge on cultivation of fish growers ranged from 23 to 41, with an average of 35.1 and standard deviation of 3.08.

Table 1: Distribution of frequency and percentage of the respondents on the basis of their knowledge level

S. No	Categories	f	%
1	Low (< 32.02)	14	23.33
2	Medium (32.02 to 38.18)	36	60.00
3	High (> 38.18)	10	16.67
	Total	60	100

Mean = 35.1, S.D = 3.08

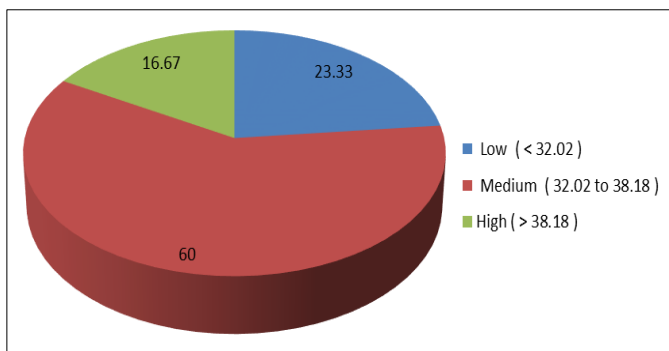


Fig 1: Percentage distribution of respondents on the basis of their Knowledge level

It is evident from table-1 that of the fish growers (60.00%) had medium level of knowledge on the recommended package of practices of fish production, followed by 23.33 per cent with low level of knowledge level and 16.67 per cent with high knowledge level. Illiteracy of the farmers, low sociability, poor extension contact, medium mass media exposure and scientific orientation could be attributed for observing this trend. Hence, the policy makers and administration including extension system need to put concerted efforts to make the farmers more knowledgeable through different information sources and also by conducting different training programmes systematically. Thus, it can be concluded that the highest 60.00 per cent fish growers were having medium level of knowledge about the improved fish production technology.

Table 2: Practice wise level of knowledge of the fish growers about fish cultivation

S. No	Cultivation practices	f	%
1	Soil type	32	53.33
2	Water quality	40	66.67
3	Pond construction	41	68.33
4	Pond preparation	50	83.33
5	Quality seed, species and stocking density	46	76.67
6	Feed and fertilizer management	34	56.67
7	Sampling	51	85.00
8	Insect and disease management	44	73.33
9	Harvesting	56	93.33
10	Marketing	60	100

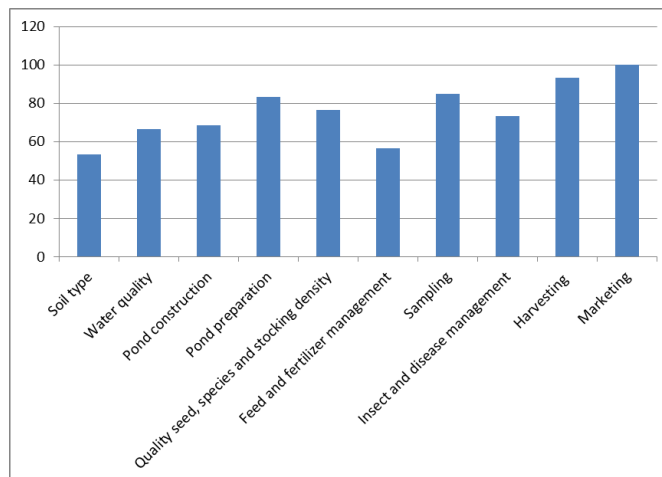


Fig 2. Percentage distribution of respondents on the basis of their Cultivation practices

The data from table-4.13 and fig. 4.13 indicates that, almost cent per cent of the fish growers had complete knowledge at the time of fish growing followed by in marketing (100%), harvesting (93.33%), sampling (85.00%). While 83.33% of the fish growers had knowledge in pond preparation, followed by quality seed, species and stocking density(76.67%), insect and disease management (73.33%), pond construction (68.33%), water quality (66.67%). Feed and fertilizer management of fish production (56.67%), and soil type (53.33%).

Thus, it can be concluded that the majority of fish growers had correct knowledge about the cultivation practices. Possible reason could be regular participation in extension activities like agricultural exhibitions, field visits and extension meetings might have helped the respondents to gain correct knowledge about recommended practices of fish cultivation.

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