

KNOWLEDGE LEVEL OF FISH FARMERS REGARDING FRESHWATER AQUACULTURE

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ABSTRACT

The present study was conducted in Kheda district of Gujarat state. Data were collected from a total of 100 farmers selected randomly from the district. Data were collected through face-to-face interview and was subjected to analysis. Majority of the fish farmers were engaged in fish farming activities in leased village ponds and were of middle age group. The aquaculture knowledge of the fish farmers on different aspect of freshwater pond fish culture practices such as, pond selection, improved species selection and stocking density, control of aquatic insects and weed fishes, pond management, feed and feeding, health management, new technologies in fish farming and harvesting and marketing revealed that most of the fish farmers belonged to low knowledge category. A few portion of the fish farmers had high knowledge as per recommendation. In view of the above findings, the study recommends that efforts should be made by extension agencies through their various programmes to highlight the economic benefits of freshwater fish farming to promote large-scale adoption of this technology.

Keywords: knowledge level, freshwater aquaculture, fish farmers

INTRODUCTION

Indian fisheries and aquaculture is an important sector of food production, providing nutritional security to the food basket, contributing to the agricultural exports and engaging about fourteen million people in different activities. Freshwater Aquaculture with a share of 34 percent in inland fisheries in mid-1980s has increased to about 80 percent in recent years. It has emerged as a major fish producing system in India as a result of initiatives taken by the government. So far, about 0.895 million ha of water area have been brought under fish farming covering 1.1 million beneficiaries. Currently the average annual yield is around 3.0 tonnes/ha. (Anonymous, 2018, Solanki et al. 2017, Vinaya et al. 2017 & 2018 and Patel et al. 2018).

Though the vast majority of population in Gujarat is vegetarian, per capita consumption of fish has dramatically increased two folds from about 4.5 kg in 1990-91 to about 9.0 kg till date and there has been consistently increasing trend of fish consumption in state. With increasing fisheries activities in the state has helped in improving the per capita availability of protein rich food fish from its available resources.

At present, freshwater aquaculture in Gujarat is

carried out in about 40% of total village ponds and tanks of 22000 ha, producing an average of less than 1 ton of fish/ha of village ponds. Besides, there are vast water resources, such as small irrigation tanks, reservoirs and water logged areas having huge potential for development of freshwater aquaculture in Gujarat. The future demand for increased quantity of fish has to come predominantly from aquaculture. Keeping all these facts in mind the present investigation was undertaken with following objectives

OBJECTIVES

- (1) To study the characteristics of fish farmers of the kheda district.
- (2) To study the knowledge level of fish farmers regarding freshwater aquaculture.

METHODOLOGY

Kheda district of Gujarat state was purposively selected because of having good number of fish farmers. Total 100 Farmers were randomly selected from different villages from all the talukas of Kheda district as per the availability of fish farmers.

RESULT AND DISCUSSION

Profile of the farmers

Table: 1 Profile of the freshwater fish farmers

n=100

Sr. No.	Category	No.	Percent
1	Age		
	Young (Up to 30 years)	23	23.00
	Middle age (31 to 55 years)	58	58.00
	Old age (above 55 years)	19	19.00
2	Experience		
	Up to 10 years	39	39.00
	11-20 years	43	43.00
	Above 21 years	18	18.00
3	Occupation		
	Fishery:	46	46.00
	Farming + Animal husbandry+ Fishery	2	02.00
	Farming + fishery	12	12.00
	Fishery +other labour work	03	03.00
	Fishery+ Business or other work:	37	37.00
4	Size of pond		
	Up to 1 ha.	13	13.00
	1.1 to 2 ha.	22	22.00
	2.1 to 5 ha.	52	52.00
	more than 5 ha	13	13.00
5	Pond ownership:		
	Single ownership	02	02.00
	Multiple ownership	00	0.00
	Leased	98	98.00
6	Learning of fish farming:		
	Neighbors	2	02.00
	Friends	19	19.00
	Relatives	14	14.00
	Department of fisheries	53	53.00
	Self study	12	12.00
7	Mass media		
	Newspapers:	83	83.00
	Magazines:	06	06.00
	Books:	03	03.00
	Internet:	08	08.00
	T.V.	12	12.00
	Radio:	00	0.00
8	Source of money for fish farming:		
	Self:	64	64.00
	Loan from bank	02	02.00
	Friends/relatives	29	29.00
	Money lenders	05	05.00
	Govt. subsidy	00	0.00
	Other:	00	0.00

From the table 1, it can be concluded that more than half (58.00 percent) of the respondents were of middle age group, followed by 43.00 percent of them had experience of 11-20 years, 46.00 percent of them had a fishery as their main occupation, more than half (52.00 percent) of them had 2.1 to 5.0 ha of pond size, cent percent (98.00 percent) of them had taken the pond farm on lease basis, more than half (53.00

percent) of them had a department of fisheries as a main source for getting the information regarding fish farming, a great majority (83.00 percent) of them were using a news paper as a source of mass media for getting the information and 64.00 percent of them had arranged the money for fish farming by themselves.

Knowledge level of fish farmers regarding freshwater aquaculture

Table 2 : Knowledge level of fish farmers regarding freshwater aquaculture

n=100

No.	Practices	No.	Percent
1	Criteria for pond selection		
	Faulty knowledge	23	23.00
	Below recommendation	53	53.00
	As per recommendation	24	24.00
	Above recommendation	0	0.00
2	Selection of improved species		
	Faulty knowledge	02	2.00
	Below recommendation	19	19.00
	As per recommendation	79	79.00
	Above recommendation	0	0.00
3	Control of aquatic Insects		
	Faulty knowledge	31	31.00
	Below recommendation	38	38.00
	As per recommendation	29	29.00
	Above recommendation	02	02.00
4	Eradication /Control of weed fishes		
	Faulty knowledge	29	29.00
	Below recommendation	49	49.00
	As per recommendation	22	22.00
	Above recommendation	0	0.00
5	Knowledge about pond Management		
	Faulty knowledge	27	27.00
	Below recommendation	43	43.00
	As per recommendation	16	16.00
	Above recommendation	14	14.00
6	Knowledge about fish seed stocking		
	Faulty knowledge	43	43.00
	Below recommendation	02	02.00
	As per recommendation	06	06.00
	Above recommendation	49	49.00
7	Knowledge about feeding management		
	Faulty knowledge	54	54.00
	Below recommendation	05	05.00
	As per recommendation	02	02.00
	Above recommendation	39	39.00
8	Knowledge about Fish Health management		
	Faulty knowledge	64	64.00
	Below recommendation	12	12.00
	As per recommendation	02	02.00
	Above recommendation	22	22.00

No.	Practices	No.	Percent
9	Knowledge about New technologies for fish farming		
	Faulty knowledge	61	61.00
	Below recommendation	29	29.00
	As per recommendation	10	10.00
	Above recommendation	0	0.00
10	Knowledge about harvesting & marketing		
	Faulty knowledge	9	9.00
	Below recommendation	47	47.00
	As per recommendation	37	37.00
	Above recommendation	7	7.00

From the table 2, it can be concluded that more than half(53.00percent)oftherespondenthadknowledge regarding the criteria for pond selection was below recommendation level of, followed by 79.00 percent of the respondent possess knowledge regarding selection of improved species as per day recommendation, Slightly less than two fifth (38.00 percent) of the respondent had a below recommendation level of knowledge regarding the control of Aquatic insects, Slightly less than half (49.00 percent) of the respondent had a below recommendation live regarding the eradication / control of weed fishes, slightly more than two fifth (43.00 percent) of the respondent had a below recommendation level of knowledge regarding the pond management, slightly less than half (49.00 percent) of the respondent had above recommendation level of knowledge about fish feed stocking, slightly more than half (54.00 percent) of the respondent had faulty level of knowledge about the feeding management, 64.00 percent of the respondent had faulty knowledge regarding fish health management, 61.00 percent of the respondent had faulty knowledge regarding the new technologies for fish farming and lightly less than half (47.00 percent) up the respondent had below recommendation level of knowledge regarding harvesting and marketing, respectively.

CONCLUSION

From the above discussion it can be conclude that very few fish farmers had recommended level of knowledge regarding the various practices of freshwater aquaculture. Among them majority of the farmers had either faulty knowledge or below recommendation level of knowledge of fish farming practices. So still there is a need to create a proper awareness by extension agencies and fisheries department regarding the scientific fish cultivation through their various

programmes and trainings for getting more benefit and which can increase the socio economic status of the farmers as well.

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