

Technology and performance of shrimp farming industry in the North Western Province

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Export oriented shrimp farming industry has shown a rapid growth during the recent years in the North Western Province of Sri Lanka. However, the productivity of shrimp farms has not shown a parallel increase. Although the land allocation for shrimp culture has increased by 30% between September 1994 and December 1995, the production increase is less than 10%. Therefore, the present survey was carried out to study the technology and performance of the shrimp farms in the North Western Province of Sri Lanka. The study was carried out from June 1995 to February 1996 and all fully developed or partially developed shrimp farms were visited. Information was collected on stocking density, pond preparation activities, and prevailing disease conditions.

It was revealed that approximately 3500ha of land has been allocated for shrimp culture of which 59% has been developed into shrimp ponds. However 32% of the ponds were newly constructed and had not been stocked even once upto the end of the present survey. Sixty five percent of farmers practised semi-intensive culture with stocking densities of 10-20 post larvae/m² while 28% of the farmers used stocking densities higher than 20 post larvae/m² and 7% of farmers practised extensive culture with stocking densities with less than 10 post larvae/m². Sixty three percent of the farms were distributed in intertidal areas and were built on pyritic soils with low pH values. However, only 4% of the farmers were unable to maintain the soil pH above 5 during culture cycle. Thirty percent of farmers used high quantities of lime (2-5 mt/ha) during pond preparation and liming was continued during farming operations. Eighty nine percent of the farms had consultants to advise them on management techniques while 11% of farmers carried out operations without external advice. Thirty nine different consultants were found to be advising the farmers. Although disease conditions have not reached a peak to adversely affect productivity totally, 87% of farmers complained of various abnormal conditions which has caused low productivity. Major complaints included swollen operculum, soft shell, black or brown gills, deposits on abdomen, tail rot and damaged appendages, weak shrimps found along dykes, and high mortality rates. Poor quality of post larvae, lack of post larvae, environmental factors and sociological conflicts also affected productivity. It could be observed that many farmers were handicapped by lack of proper knowledge on management aspects and laboratory facilities. Training workshops for farmers and to government extension service with laboratory facilities and advice to farmers would greatly enhance the productivity of the shrimp farms in the North Western Province of Sri Lanka.