

Unit VII

Post stocking management

INTRODUCTION

This phase includes the activities to be undertaken from stocking of fingerlings up to the final harvesting of fish from the pond. The activities are manuring, feeding, growth and health monitoring, water quality monitoring and harvesting.

Manuring / Fertilizing

- Besides, application of high dose of basal manuring / fertilizing before stocking, regular addition of manure / fertilizer in small quantities is required in order to ensure in tempted supply of natural fish food.
- Organisms in the pond manuring / fertilizing should be done monthly or fortnight at regular intervals and the quantities should be in split doses.

Supplementary feeding

- The need for supplementary feeding in aquaculture depends on the intensity of fish culture. After certain level of fish biomass increase the available natural food organisms in a pond are not sufficient to support further growth of fish. Oil cakes, rice / wheat beans, grain fodders and other agricultural by-products and available slaughter house by-products (blood, rumen content, Viscera etc) may be utilized as fish feed ingredients. The required can be either farm made or can be produced from feed manufactures. Feeding is the most expensive operation in aquaculture. So care has to be taken to supply the required quantity and quality of feed to the species culture. Under feeding will result in poor growth of fishes whereas, overfeeding will increase the cost of feeding. Hence, feeding assumes prime importance in improving the yield and the profitability of aquaculture. The required quantity of feed has to be estimated based on the biomass available and feed has to be given in intervals based on the species cultured

Storage of feed

- The price of feed stuff show seasonal variation. Therefore it is better to buy a larger quantity when the prevalent price is low. However, without proper storage, the nutrient values can deteriorate rapidly. A decomposed fungal infected feed must not be given to the fish. Feed ingredients should be stored in places which are dry and well ventilated. Feed should be stored always 10-15 cm above the floor level.

Regular sampling of fish

- In a proper fish production management system, periodic sampling at regular interval is very important with a view to
 - Checking the health condition of the fish
 - Monitoring the growth rate of fish
 - Calculating the quantity of supplementary feed to be applied in accordance with the increasing biomass of fish
 - Estimating survival and mortality of fish in the pond
- Periodic sampling of fish should be done at least once in a month. In each sampling 10-20 fish of every species should be taken for growth measurement. For sampling, complete netting of pond by seine net is better. However, partial netting of pond also serves the purpose of sampling. During each sampling data relating to fish health and growth rate has to be properly recorded. Any undesirable fish, if some how get into the pond, must be removed if found in the sample netting. In case of some fish exhibit the symptoms of any disease, suitable curative measures should be taken immediately. However, prophylactic treatment measure such as giving the fish dip in potassium permanganate at 250-500ppm / minutes should be strictly followed before releasing the fish back in the pond.

Harvesting of fish

Harvesting of fish means the complete removal of fish from the pond at the end of production. A single stocking and a single harvesting are the common practice in existence. However, the technique of partial harvesting and restocking is now being practiced and has been found to yield better results in terms of fish production per unit area. Bigger size fishes should be harvested and sold in batches and the pond should immediately be restocked with the same number of fishes of such species.

Benefits of partial harvesting & stocking rate

- Allow smaller fish to grow faster.
- Increase carrying capacity of a pond and thus the total production become higher per unit area.
- Farmers some cash return from the pond within a short period of 4-5 months. This encourages them to reinvest the money in Improving his production capacity
- All the tropic and special niches of the pond are fully utilized throughout the culture period maximizing production.
- Harvesting of fish is related to biological productivity and carrying capacity of the pond, when the pond is overcrowded and the productivity of pond cannot support further growth of fish biomass. In rearing pond, relatively bigger sized fishes must be harvested in order to leave available space and food for smaller fish to growth further. Thus, partial or total harvesting of fish can be done at any time when the carrying capacity of a pond is saturated.
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- Harvesting should be done by seine net preferably in the morning, when pond environmental conditions remain good. During harvesting, marketable fish should be sorted out first and then small size fish should be returned to the pond. The total operation should be done as possible so that the fishes returned back to pond are not stressed.