

Do's & Don'ts in Sustainable Aquaculture

Creating awareness among farmers on Dos and Don'ts in different stages of fish farming will help making his aquaculture a sustainable activity.



Pre- stocking

Do's

- ✓ Locate your pond site in a place with good quality soil that retains water, access to reliable water source, power and good road connectivity preferably nearer to homestead.
- ✓ Earthen pond is essential for plankton production which is the major source of food for fish.
- ✓ Construct your pond with proper dyke slopes with proper inlets, outlets and overflow pipes for ease of operation.
- ✓ Ideal pond size for production ponds is 0.2- 1ha with water depth of 1.5m.
- ✓ Prepare your pond properly by dewatering, removing unwanted plants and animals, sun drying, bottom raking, liming and manuring following recommended quantity.
- ✓ Provide fencing to the pond upto a height of 1m, it will prevent entry of predatory animal to the ponds.

Don'ts

- ✗ Don't locate your pond in water scarce or a flood prone area it leads to either scarcity of water or is prone to floods in the rainy season.
- ✗ Don't go for concrete ponds as it will be expensive and will require additional expenditure to provide soil bed at pond bottom.

- ✗ Irregular ponds with undulated bottom will not be suitable for netting operations.
- ✗ Smaller ponds will not be economical and very large ponds are not preferred from operational point of view.
- ✗ Don't neglect pond preparation as it is the first important step for sustainable aquaculture.

Stocking- Seed Sourcing and Selection, Transport and Fingerling Stocking

Do's

- ✓ Stock fish species that grows fast, accepts supplementary feed, compatible with other fishes and has a good market demand.
- ✓ Source your fish seed from reputed farm/known hatchery with history of good hatchery management practices.
- ✓ Select healthy, active, uniform sized fish with no external injuries or deformities.
- ✓ Adopt suitable transportation methods depending on the travel time.
- ✓ Make sure pond is well prepared to receive fish fingerlings with proper water depth, free from predators and required plankton.

- ✓ Acclimatize the fish to new environment before releasing into pond.
- ✓ Remove any material floating in the pond by netting.
- ✓ Remove weak, dead/deformed fish if any and disinfect/treat the fish before releasing.
- ✓ Stock multiple species feeding at different zones and feeding habits for better utilization pond food.
- ✓ Check water quality before you stock and correct if required.

Don'ts

- ✗ Don't procure fish seed from unknown sources.
- ✗ Don't use seed from mixed breed stock.
- ✗ Avoid long distance transportation as fish will be stressed and may be weak.
- ✗ Don't go for single species carp farming as there will be waste of natural food as different species feed at different niche.
- ✗ Don't stock fish without acclimatization to new pond environment.
- ✗ Don't over stock and under stock the pond.

Post stocking: Water Quality, Feeding and Feed Management and Health management

Do's

- ✓ Maintain a water depth of around 1.5 m
- ✓ Check water quality parameters once in two weeks to ensure key parameters are, in optimal level
- ✓ Optimum ranges for pH is 7.5-8; Dissolved Oxygen 4-6 ppm and Alkalinity 80—200ppm
- ✓ Check once in two weeks for sufficient plankton availability in the pond.
- ✓ Optimum plankton density is 4 -5 ml/100 litre of water filtered
- ✓ Follow liming and manuring as required based on the conditions at sampling
- ✓ Supplementary feed with a protein around 24-26% is sufficient as the carps meet most of the essential nutrients from natural food but needs to be supplemented with energy
- ✓ Feed around 3- 5% of the biomass in the initials few months and reduce it to 2-1% at the end of the culture period
- ✓ Regulate your feeding quantity depending on the fish biomass

- ✓ Use feeding trays/feeding bags to minimise feed wastage
- ✓ Look for any diseases during the sampling time
- ✓ Maintain required water depth all through the growing period
- ✓ Clear excess growth of aquatic weeds and plants on the margins (inside pond)

Don'ts

- ✗ Don't neglect monitoring water depth, water quality and fish growth and health at frequent intervals
- ✗ Don't feed fish based on assumption, it may lead to either under feeding or over feeding
- ✗ Avoid direct pond feeding to reduce feed wastage
- ✗ Don't allow any excess growth of aquatic plants /algae blooms in the pond
- ✗ Don't feed fish very late in the evening
- ✗ Don't feed fish during rainy days
- ✗ Don't over feed fish during winter months
- ✗ Don't use excess commercial inputs without consulting experts