



Feeding of TILAPIA



“ Feeding of the
fishes is likewise
feeding yourself

DO's and DON'Ts in FEEDING

1. Feed fish according to wind direction.
2. Feed based on the recommended feeding rates.
3. Conduct random fish sampling at least once a month for feeding adjustments.
4. Do not under or overfeed stocks because this will result in poor feed efficiency.
5. Always feed the fish at same time and same part of the pond. Fishes can be easily trained where to get their food.
6. Do not feed stocks 24 hours before harvesting or transporting.
7. Adjust feeding depending on fish appetite and weather condition.
8. Keep a daily record on all feeding activities.



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IMPORTANT POINTS to be considered in FEEDING TILAPIA

Tilapias are omnivorous; they feed on phytoplankton, zooplankton, bottom organisms and detritus. Their flexible feeding habits make them ideal for culture. They are able to take in a variety of feeds in meal form and both in floating and sinking pellet form.

For higher yields, many farmers adopt high stocking densities and provide supplemental feeds to their stocks because of increased production and improved profits.

Tilapia Culture Systems

CULTURE SYSTEM	STOCKING DENSITY	SOURCE OF FOOD
Extensive	3 pcs/m ²	Depend on natural productivity of the pond
Semi-Intensive	4-8 pcs/m ²	In addition to natural food, supplemental feeding is given like rice bran and commercial feeds
Intensive	8 pcs/m ² or beyond	Largely depend on complete or commercial feeds

In extensive and semi-intensive farming of tilapia, ponds are fertilized with chicken manure or inorganic fertilizers to increase the density of natural food available in the pond.



Feeding Guide for Tilapia in Ponds

Size of Fish	Type of Feeds	Feeding Rate	Feeding Frequency	Culture Days
<5g	Fry mash	30-15%	2-4x/day	1-30 days
6-30g	Starter	15-10%	2-3x/day	30-45 days
31-90g	Grower	10-5%	2-3x/day	45-120 days
>91g	Finisher	5-2%	2-3x/day	125-130 days

Presence of natural food, water, temperature, fish size and quality of feeds affect the feed consumption of tilapia. The appetite is generally poor when temperature is low resulting to prolonged culture days. Optimum temperature ranges from 25-30°C.

Feeding Methods

1. Broadcast Method (sabog)

- The most common feeding method using cup or a ladle where feeds are distributed evenly or in several sites so that all fish have access to food.

2. Use of feeding trays

- Feeds are placed in a B-net (32mm mesh size) tray and suspended in water.

Forms/Types of Feeds

1. Natural Food

Planktons are the most preferred natural food for tilapias. Increase in their densities is the result of pond fertilization.

2. Fry Mash

Powdered form of formulated feeds which are given to fry 5 grams and below.

3. Starter Crumble

Crushed form of feeds which are given to fingerlings weighing 5.1g to 30g per piece.

4. Pellets

Larger form of feeds given to juveniles and adults depending on mouth size and ability to swallow feed particles.

Important Feeding Formulas

Average Body Weight - average weight of tilapia per piece

$$ABW = \frac{\text{total weight of samples}}{\text{number of samples}}$$

Daily Feed Ratio - daily amount of feeds to be given

DFR = ABW x feeding rate x stocking density
If the ABW is 105g; Stocking Density is 1,000 pcs tilapia; feeding rate is 10%

$$DFR = 105g \times .10 \times 1,000 = 10,500g \text{ or } 10.5 \text{ kgs of feeds}$$

(10.5 kgs feeds can be divided into 3 rations which will be fed morning, midday and afternoon)

Feed Conservation Ratio - ratio of feeds given to the gain weight

$$FCR = \frac{\text{amount of feed consumed}}{\text{weight of fish}}$$

Note: The closer the FCR to 1.0, the better. Good feeds have FCR's between 1.5 - 2.0

Feed Storage

Feeds should be stored in a cool dry place. They should be properly packed to prevent moisture uptake and maintain aroma, flavor and color.