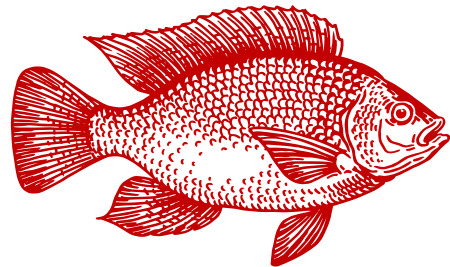




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CULTURE OF RED TILAPIA IN BRACKISH WATER PONDS



Red Tilapia is now a promising species for pond and cage culture and has created a demand for technology advances. It is considered a high value food fish because of its high demand in high-end restaurants due to its color and taste, emulating other expensive marine species.

Red Tilapia was originally from genetic mutants of *Oreochromis niloticus*, *Oreochromis mossambicus* and *Oreochromis aureus*. The first red tilapia, produced in Taiwan in the late 1960s, was a cross between a mutant reddish-orange female Mozambique tilapia and a normal male Nile tilapia. It was called the Taiwanese red tilapia. Another red strain of red tilapia was developed in Florida in the 1970s by crossing a normal colored female Zanzibar tilapia with red-gold Mozambique tilapia.

A third strain of red tilapia was developed in Israel from a mutant pink Nile tilapia crossed with wild *Oreochromis* species.



Culture Method

Site Selection

Brackishwater ponds used for milkfish and tilapia production can be used for the pond culture of red tilapia. The pond should have an average water depth of 1.0 m. with a salinity range of 10–25 ppt.

Pond Preparation

The pond is prepared using the procedures involved in the pond preparation for semi-intensive culture system. These involve pond drying, pond leveling, pest and predator control, application of agricultural lime (1kg/100m²) and teaseed cake, and pond fertilization (chicken manure at 1–2 t/ha; inorganic fertilizer at 100–200 kg/ha). The repair of pond gate and dikes is also undertaken at this stage.

Stocking

The ponds are stocked at a rate of 5–8 pieces per square meter with size #14 red tilapia fingerlings.

Feeding

Daily feeding of stocks is done at 8am and 4pm with commercial feeds (30–33% CP).

TYPE OF FEEDS	FEEDING RATE	DURATION
FRY MASH	8%	15 DAYS
STARTER	8%	15 DAYS
CRUMBLE	5%	2 MONTHS
GROWER	3%	2 MONTHS

Monitoring and Sampling of Stocks

Daily monitoring is done to check on the status of stocks and for maintenance and repair of pond structures. Monthly sampling of stocks is done to monitor growth of fish and to adjust the feed requirement. Water quality parameters such as temperature, salinity, dissolved oxygen, pH and ammonia should also be monitored daily or at least once a week.

Harvesting

The stocks are harvested after a 5-month culture period when they reach marketable sizes of 4–5 pc/kg.

Marketing

The harvested red tilapia are sold in public markets or to other consumers.

ECONOMIC INDICATORS FOR RED TILAPIA CULTURE IN BRACKISHWATER POND IN 5 MONTHS PERIOD FOR 2 CROPPINGS PER YEAR			
	STOCKING DENSITY		
	3 PC/M ²	5 PC/M ²	8 PC/M ²
NET INCOME (P) =	92,988.00	99,343.00	20,062.00
ROI (%) =	97%	77%	13%
PAYBACK PERIOD (YR) =	0.9	1.2	4.9
BREAKEVEN PRICE (P/KG) =	57.00	64.80	105.62
BREAK-EVEN PRODUCTION (KG/CROP) =	701.10	972.14	1,225.15
TOTAL CAPITAL INVESTMENT REQUIRED (P) =	96,632.00	129,157.00	159,518.00
SURVIVAL RATE =	86%	83%	61%