



TILAPIA FINGERLING PRODUCTION

Eggs are collected from brood fish



Brood female tilapia

Egg Hatching Jar

Eggs are hatched and fry are grown to 1-gram



Day old fry are counted, stocked in a rearing tank, fed daily and grown for 1 month to 1-gram size



Fry can be shipped off-island to other tilapia farmers

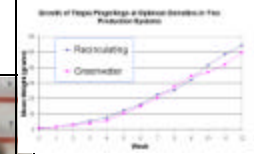
Fingerlings are grown in Recirculating or Greenwater System to 50-grams



Greenwater Nursery System



Recirculating Nursery System



Feed rate (% of bodyweight) for Different Sizes of Tilapia Fingerlings			
Fingerling weight (grams)	Recirculating System	Greenwater System	System
0	0.5	0.5	0.5
10	1.0	1.0	1.0
20	1.5	1.5	1.5
30	2.0	2.0	2.0
40	2.5	2.5	2.5
50	3.0	3.0	3.0
60	3.5	3.5	3.5
70	4.0	4.0	4.0
80	4.5	4.5	4.5
90	5.0	5.0	5.0
100	5.5	5.5	5.5

Tilapia fingerling, 50-grams



Red Tilapia, 1 lb.



Nile Tilapia, 2 lbs.

TILAPIA GROWOUT PRODUCTION METHODS

POND CULTURE



WHAT IT IS

Uses:
constructed ponds
sloping sides and bottom
drain for complete drying

Produces:
4000 lbs. per acre per crop

HOW IT'S DONE

build pond with bulldozer
fill with water
stock with fish, 4000 per acre
feed daily
harvest completely after 6 months

ADVANTAGES

inexpensive to operate

DISADVANTAGES

reproduction by fish leads to overpopulation
and stunted growth
difficult to harvest



CAGE CULTURE

WHAT IT IS

Uses:
existing watershed ponds
and 1 yd³ plastic cages

Produces:
400 lbs. per cage every 6 months

HOW IT'S DONE

build the cage with rigid plastic mesh, PVC pipe,
steel hoops and floats
build a demand feeder for automatic feeding
stock with 300 fingerlings
check feed daily
harvest after 6 months.

ADVANTAGES

inexpensive
easy to harvest

DISADVANTAGES

susceptible to theft



GREENWATER



WHAT IT IS

Uses:
fiberglass or lined, circular tank 30'-52' dia.
cone bottom for daily solids removal
aeration with propeller pump

Produces:
3,000 – 4,000 lbs. of tilapia every 6 months

HOW IT'S DONE

construct tank with center sloping bottom and
center cone
fill with water and add fish
feed daily
remove solids daily
check pH and adjust daily
harvest after 6 months

ADVANTAGES

easy to stock and harvest
low electricity use
daily tasks are simple
feed and remove solid waste

DISADVANTAGES

water quality is difficult to manage



AQUAPONICS



WHAT IT IS

Uses:
fish culture integrated with hydroponic vegetable
production
fish are held and fed in rearing tanks separate
from vegetable crop tanks

Produces:
1000 lbs. of tilapia every 6 weeks

HOW IT'S DONE

system is constructed to design specifications
fish are stocked and fed in rearing tanks
water is circulated to hydroponic tanks
vegetables grow on floating polystyrene sheets

ADVANTAGES

produces high value products
multiple use of resources

DISADVANTAGES

expensive to construct
management and labor must be highly skilled

