- 7. Siphon staring at the very bottom of the container where the nauplii are crowding or use the bottom drain when available.
- VI. Disease Treatment

For lesions :



Antibiotic bath (1.3 grams antibiotic per 6 liters of water) for 2-4 hours. It may be necessary to this overnight for extreme cases.

For parasites:

Formalin bath (100-150 ppm) for 30 minutes for 3 consecutive days.

VII. Market Prices

(as of May 1998, Dagupan City)

| 45 days | P3 |
|----------|---------------|
| 60 days | P5 |
| 90 days | P10 |
| Breeders | P600 per pair |

Small sizes of goldfish are for sale.

Come and visit us to see our aquaria and breeding facilities.

Breeding of **GOLDFISH**

(Egg-bearing type)







NATIONAL INTEGRATED FISHERIES TECHNOLOGY DEVELOPMENT CENTER

Bureau of Fisheries and Aquatic Resources Department of Agriculture Tel. No. (075) 653-5412; Telefax No.: (075) 653-0385 E-mail : bfarniftdc@yahoo.com

Published by the ASIAN FISHERIES ACADEMY

E-mail : asianfishacademy@yahoo.com Tel. No. (075) 653-8851



I. Male/Female Characteristics

Female - more pot-bellied Male - longer body



II. Maturation/Spawning Age

- Natural spawning usually occur from February to October and stops during the cold months.
- Spawning cycle of every 15-20 days.
- Spawning not less than 1,000 eggs are laid per spawning for small sizes.
- A 90% hatching and survival rate is normally attained.

III. Spawning Methods

- Natural
- Artificial by hand stripping (forcing out of the eggs by pressing and sliding one's hand over the abdomen and placing the eggs in a tank containing the males).
- IV. Characteristics observed when ready for mating:

Male pursues female, thugging at the female's belly.

A.Facilities/equipment needed:

- 1. PE tank of about 100 li. capacity
- Slatted plastic trays to be placed at the bottom of the tank to protect eggs from the parents
- 3. Aerator
- 4. Egg collectors made from nylon rope

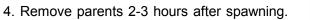




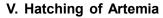
B. Steps :

1. Set up the tank, place plastic slats, nylon collector and aeration.

- 2. Aerate water overnight.
- 3. Place 1 female and 3-4 males per tank.



- * Aeration of eggs must be very gentle to ensure hatching.
- 5. Give good (Artemia) starting on the fifth day after spawning until two weeks. Thereafter, artificial feeds.
- 6. Let the set-up stand for 10 days. Changing of water is not necessary.
- 7. After 10 days, transfer to grow-out tank or pond.
- * Avoid overstocking so that even during power interruptions, absence of aeration will not be critical.



- 1. Wash the cysts with tap water.
- 2. Using a conical/funnel-shaped tank, incubate the cysts for 24-48 hours in natural seawater at a density of not greater than 5 g/L of incubation medium.





- 3. Keep temperature within the range of 25-30°C and the pH at 8-9.
- 4. Provide sufficient light at least during the first two hours of continuous illumination of about 2,000 lux (attained by a 40-watt flourescent light tube suspended about 20 cm above the hatching container.
- 5. Maintain the dissolved oxygen level above 2 ppm with cysts kept in suspension by strong aeration throughout the incubation period.
- 6. When hatching has occurred (Indicated by the brownish orange coloration of the nauplii), stop aeration and cover the upper part of the container with a black cloth or plastic sheet for about 5-10 minutes.

