

# ICAR Technology: Breeding and Seed Production of Milkfish

## *Chanos chanos* (Forsskål, 1775)

- Milkfish is one of most preferred brackish water finfish for farming in ponds and in pens. Widely distributed in Indo-Pacific region.
- Spawn twice in a year, during January to April (primary season) and October to November in the wild. However, under captive maintenance, spawning period could be extended from February to September through hormonal manipulation with maintenance of seawater salinity range from 30-35 %.
- There is no distinct sexual dimorphism. The ova diameter of fully mature female is 650-680  $\mu\text{m}$  during breeding season, whereas males ooze white viscous milt on pressing the belly.
- Brooders of above 3.0 kg are raised in large tanks, stocked with 1.0  $\text{kg}/\text{m}^3$  fish and fed floating brood diet for maturation under captivity.
- The fish requires combined hormone pellet implantation (LHRH-A + 17 $\alpha$ - Methyl Testosterone) at regular intervals. Being intermittent spawner, it spawns spontaneously batch by batch.
- Mother milkfish can spawn 0.3-1.0 million eggs/kg body weight. Fertilized eggs appear slightly yellowish (size 1.10-1.25 mm). Hatching occurs in 24-25 h at water temperature of 27.0-29.0°C. The newly hatched larvae measure 3.2-3.4 mm in total length.
- Hatchlings are reared in semi-outdoor tanks @ 10-15 no/l. First feeding is initiated with rotifer *Brachionus plicatilis* from 2nd day post hatch (dph) along with the green algae. *Artemia* nauplii is introduced from 14th dph.
- Artificial feed (200 -300  $\mu\text{m}$ ) is provided from 20thdph. The fry reaches size of 1.5 cm in 30 dph with the average survival rate of 40-45%.
- The breeding technology developed is being transferred to Tamil Nadu and other adjoining states.



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