similar to mosquito nets. Screening prevents entry of wild fish or escape of eggs and fry. Fill pond with fresh stream water. Plant mature papyrus heads such that they are just submerged under water when the pond is filled to the maximum. The papyrus heads are for egg attachment. Small branches of Christmas tree or water cabbage can also be used. Maintain strong water current through the pond.

4. Fry Production

Select the ripest female and male brooders and bring them together, at a ratio of 1 female to 2 males into the fry production pond. A ripe broodstock is very delicate and should be handled with great care otherwise it fails to spawn. Avoid handling fish during very hot hours. Use wet towels or blankets to handle the ripe broodstocks during transfer.

Eggs are laid at night. Mirror carp eggs become sticky on fertilization. Simply lift and examine the strands of the papyrus heads to check for the eggs. Reduce water current to minimum to avoid washing away the fry. Fertilize the pond with animal manure.

The eggs hatch within two to three days, depending on the warmth of the water. Remove papyrus heads from the pond after five days from egg laying. Remove the broodstocks after one week and transfer them back to the broodstock holding pond to recover.



Roots and branches with eggs attached

Fry start feeding on the natural food in the water, start feeding the fry after one week with the same feed given to the broodstock. Break the feed into small crumbs and broadcast into the pond in small quantities four to five times daily.

Two "tumpecos" of the feed per day is adequate for fry produced by one set of 1 female and 2 male broodstocks. The fingerlings are ready for distribution at 2 to 5 grammes measuring about 5 to 6 cm after two months.

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HOW TO PRODUCE MIRROR CARP FRY (Cyprinus carpio)



Fisheries Resources Research Institute (FIRRI)

NARO

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INTRODUCTION

The commonly farmed fish in Uganda, the Nile tilapia, grows very slowly in the cooler regions like Kabale, Kapchorwa and parts of Mbale and Kabarole districts. In 1957, the Mirror carp (simply called Carp) was introduced into Uganda from Asia. Carp, unlike tilapia, takes 8 months to attain an average weight of 500g. In similar regions, under current levels of management, the tilapia takes abit longer to reach 500g.
Therefore, Carp is recommended for these regions

However, Carp does not produce fry easily in ponds. Special treatments are required. This brochure outlines the processes and steps to be followed to produce Carp fry.

1. Pond requirement

A minimum of four ponds is required for producing Carp fry. One pond holds the stock of fish from which the broodstocks are selected. The second and third ponds are broodstock ponds; one holding only males and the other only females. The fourth pond is the try production pond.

2. Preparation of broodstocks

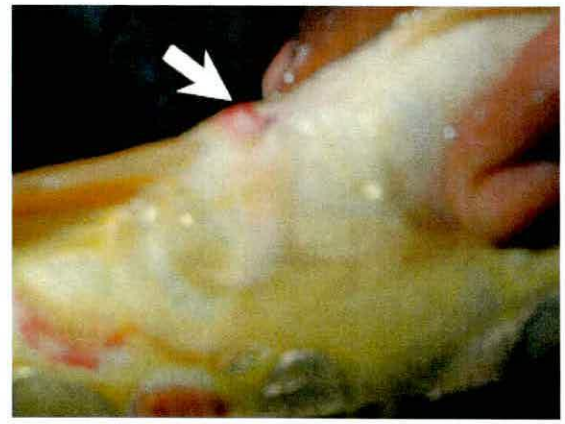
Separate mature males and females from each other, stock them at one fish per five square meters and feed intensively. Ensure there are no signs of bad health, bruise or deformity.

a). The pictures below show the difference between the female and the males. The mature female oozes eggs while mature male oozes white liquid out of its anal vent when the belly is pressed. The ripe broodstocks, ooze out the eggs and white liquid more easily.

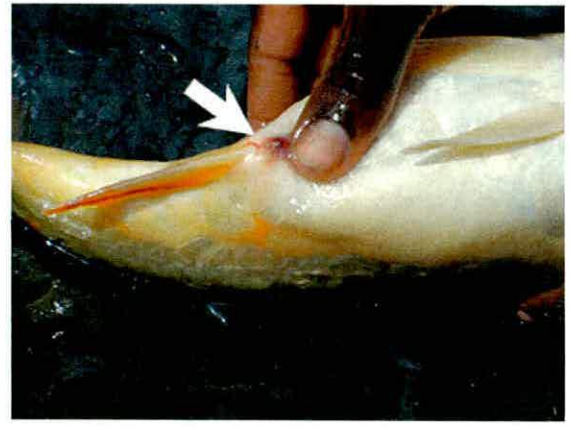


Top: Female with well rounded belly.
Bottom: Slender male

b). Feed broodstock intensively with food rich in protein at a rate of half a "tumpeco" per kg of its weight per day at mid morning and early afternoon.. To make 50kg of the feed mix 35 "tumpecos" of maize or rice bran, 60 "tumpecos" of mukene and 5 "tumpecos" of sunflower cake. Mingle the mixture in hot water to make dough. Feeding continues until the fish is ripe.



Ripe male oozing white liquid



Ripe female oozing eggs

3. Preparation of fry production pond

While the broodstocks are getting conditioned, drain, dry and remove the mud from the fry production pond. Disinfect the pond by spreading a layer of white builders' lime thinly over the bottom.

Screen the inlet and outlet pipes using netting materials with fine meshes