

Veterinary

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Farmer friendly method of breeding and nursery rearing of common carp (CC) in Telangana

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Cyprinus carpio Linnaeus, is native to Asia has been introduced to every part of the world for food and Ornamental purposes. It is a torpedo-shaped fish golden-yellow in color with two pairs of barbels and a mesh-like scale pattern. Body elongated and somewhat compressed, piggish mouth with lips thick. All IMC (Indian major carps) & exotic carps (EC) typically spawn in the spring, in response to rising water temperatures and rainfall in natural waters where eggs and larval stages of multi species get mixed up makes it difficult to separate for culture of interested species, hence in a hatchery system for spawning and seed production is prevailing. A process called hypophysation by injecting the gonadotropic hormones/ovaprim, to stimulate gonad maturation and sex steroid production, ultimately promotes reproduction in commercial operations. But CC does not require hypophysation; can spawn multiple times in a season in any pond body. For breeding of common carp, brood fish weighing 300 to 1000 gm size were selected & maintained for 1 month in earthen ponds during May. After doing sex wise segregation, kept in separate ponds, given maturation diets with ground nut oil cake+Rice bran+chicken egg yolk at 5-6% body weight for 12 days in June 2014. Then the cement nursery tanks filled with water were prepared by liming and manuring to facilitate plankton generation. The Hapas with micron mesh sizes inundated in water stitched at all sides and top open were tied in the cement tanks. The water plants like *Hydrilla* and grasses/hey placed inside the hapa to facilitate the egg attachment after release. Males and females in 2:1 ratio by number without hypophysation were introduced 6 pairs into 3 breeding hapas (2 pairs per hapa). On the other hand males and females with a single dose of ovaprim injection at 0.3 ml/kg body weight were introduced 6 pairs in another tank (3 pairs per hapa). Such a total number of 36 breeders were used for breeding experiment and left over night in the hapas tied in cement tanks. Later the spent fish were removed after complete hatching hapas were removed from the tanks. The eggs and fry often fall victim to bacteria, fungi and the vast array of tiny predators and insects, hence most care was taken to keep the pond environment clean to protect the eggs and hatchlings by applying salt & soap oil emulsion in nursery ponds. Then the nursery phase was followed for 30 days and the nursed fry distributed to the farmers in oxygen packing.

Biography

Rajani Vadthya is currently working as a Scientist/Assistant Professor at KVK Mamnoon, SPVNR Telangana State University for Veterinary Animal and Fisheries Sciences. She is the first person in science to report the male & female differentiation in *Horabagrus nigricollaris*. She has done research on "reproductive system & reproductive behavior" of *H. nigricollaris*. She was awarded with "Rythu Bandhu" award by Nest foundation in November 2014.

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