

Yearly seed production target fulfilled in Pre-Monsoon breeding at Ahmed Fish Seed Centre, Barpeta, Assam using CIFABROOD™

Ahmed fish seed production Centre a private farm situated in Sonertari, Barpeta district of Assam. It spread across 15 hector area comprises of 4 ha of land and 11 ha of pond area. The farm has 3 brood stock ponds, 5 nursery ponds, 6 hatching pools, 3 stocking ponds and 3 rearing ponds. The farm maintains brood stock of IMCs (rohu, catla, mirgal), bata, Silver carp, Grass carp and Common carp.

In Assam the winter is prolong up to March 15th, which is immediately followed with monsoon rain. Therefore, there is hardly any time for proper gonad maturation of the fishes and the hatchery owners starts breeding operation. This results in reduced fecundity, poor fertilization rate, very low hatching and spawn recovery. However, price of spawn selling remains relatively higher (@Rs6000/- per liter) during March-April. Mr Fatik Ahmed has experienced all these for last five years of his hatchery business. Total spawn production of 2018 was 6.5cr out of which only ~2.5cr was produced during March-April 2018. This farm was selected for undertaking feeding trial on CIFABROOD™ under the NFDB funded project to demonstrate pre-monsoon maturation and breeding in 2019.



CIFABROOD™ was delivered in the farm on 25th February 2019 by ICAR-CIFA. Feeding started immediately from next day itself in two ponds of 0.26 ha and 0.5 ha stocked with rohu, catla, mrigal and bata. Feed was provided in bags @ 2% of b.wt. or 6kg and 10kg per day in respective pond till next 50 days. Other ponds were fed with farm made feed and considered as control.

Within 15 days of feeding broods were observed fully mature in the demonstration pond. The first breeding program was planned and conducted on 15 March 2019. Later 12 successive breeding programs (total 13 including 10 for rohu & mrigal and 3 for bata) were undertaken till 15th April 2019. Catla breeding started one month later i.e. after 15th April 2019 only. Brooders were injected

with hormone Ovasis to carry out the breeding programs. A total 517 kg of female broods produced 5750 litters of egg and 6.25crores of spawn was recovered till 15th April 2019. (details are given below in the table 1. Farmer told, “**My yearly target of seed production is already complete within April 15, 2019.**” He also told that his customers were very happy with active spawn, very less mortality and faster growth to fry and fingerlings.

Table: 1 Breeding performances of CIFABROOD™ fed rohu, mrigal and bata under demonstration trial

Date of Breeding	Broods		Litters of Eggs	Spawn recovered (Lakhs)
	Male	Female		
15-03-19	50 Kg	42 Kg	500	50
16-03-19	50 Kg	43 Kg	490	50
18-03-19	53 Kg	39 Kg	520	55
20-03-19	50 Kg	38 Kg	450	40
25-03-19	50 Kg	39 Kg	470	45
28-03-19	40 Kg	35 Kg	250	35
30-03-19	59 Kg	47 Kg	550	60
02-04-19	55 Kg	50 Kg	550	65
05-04-19	35 Kg	27 Kg	240	40
07-04-19	51 Kg	40 Kg	510	55
10-04-19	50 Kg	42 Kg	500	50
13-04-19	45 Kg	40 Kg	450	37.5
15-04-19	40 Kg	35 Kg	270	42.5
Total	628	517	5750	625

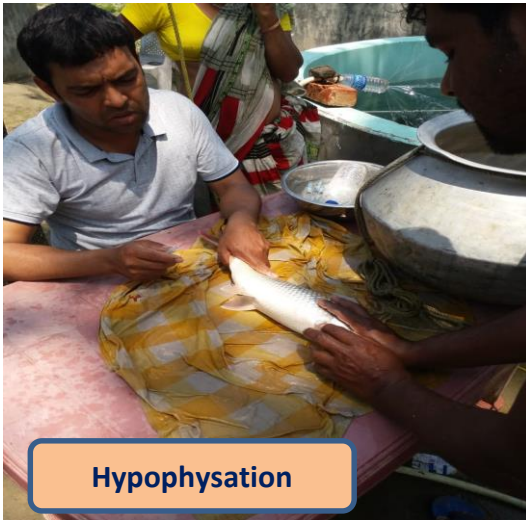
Relative Fecundity(per kg body weight)	2.22 Lakhs
Fertilization rate	80%
Spawn recovery (in %)	68%
Spawn recovery (per kg body weight)	1.21 Lakhs



Hanging bag in the pond



Hatching pool



Hypophysation



Collection of fertilized Eggs



Selling of Spawn