



रामकृष्ण आश्रम कृषि विज्ञान केंद्र RAMKRISHNA ASHRAM KRISHI VIGYAN KENDRA



डाकघर: नीमपीठआश्रम-७४३३३८

पिला:दक्षिण२४-

परगना(सुंदरिन) पश्चिमबंगाल,

इंडिया

दूरभा: ०३२१८-२२६००२, मोबाइल:६२९४८२९०४७

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Course title : **Transformation of Rural Youth into Agricultural Entrepreneurs through Catfish Hatchery & Horticulture Nursery Operations**

Organized by : Ramkrishna Ashram Krishi Vigyan Kendra, Nimpith

No. of participants :

Duration : 5 days (14.09.2026 -18.09.2026)

Course Coordinator : Dr. Debiprasad Kantal, Subject Matter Specialist (Fishery)

Dr. Aritra Sarkar, Subject Matter Specialist (Horticulture)

P R O G R A M M E

14th Sept, 2026

Time	Programme Details	Theory or practical
10.00 a.m.	Registration of the participants	
11.00 a.m.	Expectation mapping and ice-breaking session with participants	
11.45 a.m.	Preliminary evaluation and baseline impact assessment	
01.00 p.m.	LUNCH BREAK	
02.00 p.m.	Overview of the status, economic scope, and entrepreneurship opportunities of Catfish Farming and Horticulture Nursery in South 24 Parganas -Dr. Debiprasad Kantal / Dr. Aritra Sarkar	Theory
03.30 p.m.	TEA BREAK	
03.45 p.m.	Identification of nursery plant (fruit/ornamental) and nursery tools -Dr. Aritra Sarkar	Practical
05.15 p.m.	CLOSURE	

15th Sept, 2026

Time	Programme Details	
09.30 a.m.	Principles of plant propagation techniques (Cutting, layering, grafting, budding, tissue culture etc.) - Dr. Aritra Sarkar	Theory
11.00 a.m.	TEA BREAK	
11.15 a.m.	Poly house and shade house structure – use in seedling & sapling raising, Components of garden (variety, trees, plants, shrubs, grass, hedges, edges) and types of garden (Landscaping of industry, home, institute) -Dr. Aritra Sarkar	Theory
01.00 p.m.	LUNCH BREAK	
02.00 p.m.	Fishery Session : Principles of induced breeding in catfishes (Clarias batrachus / Heteropneustes fossilis). Broodstock management, selection criteria for ripe males and females, synthetic hormone dosage calculations, and environmental parameters required for spawning — Dr. D. Kantal	Theory
03.30 p.m.	TEA BREAK	

03.45 p.m.	Fishery Session : Visual identification and segregation of ripe male and female catfish breeders. Live demonstration of weight-based synthetic hormone injection (e.g., Ovaprim/Ovatide). Setting up the indoor breeding hapas/tanks for overnight natural spawning - Dr. D. Kantal	Practical
05.15 p.m.	CLOSURE	

16th Sept, 2026

Time	Programme Details	
09.30 a.m.	Fishery Session : Early morning monitoring of spawned eggs, stripping/artificial fertilization check. Removal of spent breeders from the system. Estimation of fertilization rate, washing of fertilized adhesive eggs, and transfer to flow-through hatching trays/incubators - Dr. D. Kantal	Practical
11.00 a.m.	TEA BREAK	
11.15 a.m.	Fishery Session: Biology of hatching, developmental stages of catfish embryos, water flow management in hatcheries, and prophylactic treatments against fungal/bacterial infections on eggs — Dr. D. Kantal	Theory
01.00 p.m.	LUNCH BREAK	
02.00 p.m.	Sowing time & procedure: media preparation, soil treatment, seed treatment, bed preparation, plug-trays methods -Dr. Aritra Sarkar	- Practical
03.30 p.m.	TEA BREAK	
03.45 p.m.	Practical on different methods of cutting & budding, layering and grafting -Dr. A. Sarkar	- Practical
05.15 p.m.	CLOSURE	

17th Sept, 2026

Time	Programme Details	
09.30 a.m.	Pest and disease management in nursery plant -Dr. Prabir Kumar Garain	
11.00 a.m.	TEA BREAK	
11.15 a.m.	Entrepreneurship and business development: Basic knowledge and key points - Dr. Chandan Kumar Mondal	Theory
01.00 p.m.	LUNCH BREAK	
02.00 p.m.	Fishery Session : Mass-culture techniques and collection of live food organisms; Demonstration of water pH testing, Method of feed application (Bag/Tray) -Dr. D. Kantal	Practical
03.30 p.m.	TEA BREAK	
03.45 p.m.	Fishery Session : Examination of newly hatched catfish larvae. Mass-culture techniques and collection of live food organisms (Artemia nauplii, rotifers, daphnia). First feeding protocol implementation for post-larvae (yolk-sac absorbed) - Dr. D. Kantal	Practical
05.15 p.m.	CLOSURE	

18th Sept, 2026

Time	Programme Details	
09.30 a.m.	Fishery Session: Cleaning and maintenance of larval rearing tanks to prevent mass mortality. Demonstration of packing and stress-free transportation parameters for high-value catfish seed distribution -Dr. D. Kantal	Practical
11.00 a.m.	TEA BREAK	
11.15 a.m.	Economics of a nursery enterprise and mini-catfish hatchery, preparing banking credit models, marketing strategies, and government subsidy channels for rural youth - Dr. A. Sarkar / Dr. D. Kantal	Theory
01.00 p.m.	LUNCH BREAK	
02.00 p.m.	Post-training evaluation, feedback collection, and open house discussion	
03.30 p.m.	TEA BREAK	
03.45 p.m.	Valedictory Session, distribution of certificates, and concluding remarks — Senior Scientist & Head, RAKVK	
05.15 p.m.	FINAL CLOSURE	

Course Coordinator