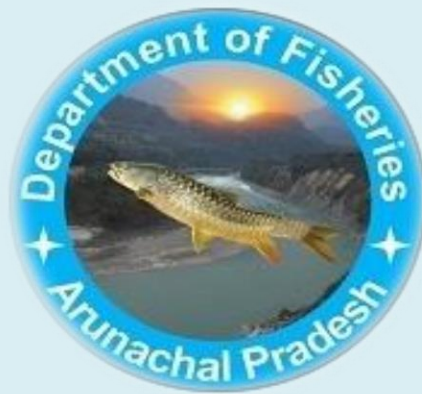


**Integrated Livestock
Fish Farming System
(Duck cum Fish Culture)**



**Directorate of Fisheries
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INTEGRATED LIVESTOCK FISH FARMING SYSTEM (DUCK CUM FISH CULTURE)

- It is one of the classical systems of integrated fish farming and is widely practiced.



- Duck droppings act as feed and fertilizer.
- Supplementary feed is not required as 10-20% feed/ day/ duck is wasted which can be utilized as fish food.
- Ducks because of its dabbling activity helps in providing mild waves which helps in water movement and circulation of nutrients within the pond.
- Continuous swimming of ducks increases DO content of pond water.
- No additional space is required for duckery activities, as the duck shed can be constructed at the embankment over water surface.
- Duck gets 50-60% of their total feed requirement from the pond in the form of aquatic weeds, insects, mollusks etc., which do not constitute food of the fishes.
- This system of farming is highly cost effective as there is simultaneous production of fish, eggs and duck meat from a unit area.



- A combination of six species viz. catla (20%), silver carp (20%), rohu (20%), mrigal (15%), grass carp (10%) and common carp (15%) should be stocked @ 8000-9000 fingerlings per ha.
- No need to give additional manures to the fish. The duck dropping during the previous day are collected from the shed and applied uniformly into the pond every morning.
- Lime @ 250-300 Kg/ ha/year is applied depending upon the soil and water conditions. Half the quantity is applied before stocking of fish seed and rest in 4-6 equal installments to keep the water alkaline & hygienic.

- Ducks @ 200-300 Nos/ha water area are appropriate. 20-30 ducks are sufficient to produce enough manure to fertilize 1000M²(0.1 HA) water area of pond.



- The stocking ratio of male: female should be 1:5 i.e 1 male for 5 female ducks.
 - For egg laying Khaki Campbell & Indian runner is preferred while for meat white pekin variety would be suitable.
 - White pekin is fast growing and has low feed consumption. It attains about 2.2 to 2.5 kg of body weight in 42 days of age with a feed conversion ratio of 1:2.3 to 2.7 Kg.
 - Ducks do not need sophisticated housing as they are relatively hardy birds. They prefer to stay outside during day time.
 - Duck house should be made on the pond dyke or over the pond surface with locally available materials.
 - Duck can thrive on all sorts of food since they have good digestive system. Duck get 50% of their total feed requirement from the pond while rest is compensated through supplementary feeding of locally available feeds.
 - A mixture of any standard commercial feed for layer chicken and good quality rice bran in the ratio 1:2 by weight can be feed to the ducks @ 100 gm feed/bird/day.
 - Ducks prefer wet mash due to difficulty in swallowing dry mash. Feed should be provided twice a day i.e first feeding is done in the morning before releasing the ducks and second feeding in the evening after returning to shed.
 - Ducks are usually susceptible to the common diseases like duck plague, duck cholera, hepatitis etc.
 - For duck plague, cholera and hepatitis vaccination needs to be done at right time. Antibiotic treatment and strict hygienic measures like cleaning of feed and water through regularly and storage of feed in dry places to avoid fungal growth/ infections can be adopted to minimize vulnerability.
 - Fish yield from 2000 to 2500 kg/ha/year can be obtained where as 18000 to 18500 eggs & about 500-600 kg of duck meat in addition to table fish.
- **Source of fish seed- Contact the District Fisheries Development Officer of your District for quality seed/fingerlings.**
 - **Always try to stock ponds with superior quality fingerlings of 7-9 cm as they have better survival rate. Stocking of pond with smaller sized fry/seed of less than 2 cm may not survive well.**



Estimate For Duck-Cum-Fish Culture(unit area 0.4 ha) (NABARD)

Sl. No.	Description/ Items	Quantity	Rate(₹)	Amount (₹)
A	Expenditure			
1.	Cost of Fish Fingerlings	5000 nos.	₹750/thousand	3750
2.	Cost of Ducklings	160 nos	₹100/each	16000
3.	Feed For Ducklings	4080 kg	₹20/kg	81600
4.	2 mm Fish Feed for Fish Fingerlings	400 kg	₹50/kg	20000
5.	Medicines and Misc. for Ducklings			5000
6.	Lime	200 kg	₹10/kg	2000
7.	Duck House	1		25000
Total Expenditure				153350
B	Income			
1.	Fish	2400 kg	₹ 140/kg	336000
2.	Duck Meat	225 kg	₹150/kg	33750
3.	Duck Egg	12000 nos.	₹ 10/each	120000
Total Income				789750
Profit (B-A)				336400