



FARM MADE FEED FOR CARP CULTURE

In carp poly culture system generally Catla, rohu, mrigal (Indian major carps) and silver carp, grass carp, common carp (exotic carps) are cultivated together. Mostly in our country farmers undertake semi intensive carp culture in earthen ponds. Fish production success in semi intensive culture equally depends on the pond productivity as well as supplementary feed. Feed cost constitutes as one of the major expenditure for fish farmers. Branded commercial feeds for carp culture are available in market. Many small fish farmer cannot afford to purchase these commercial feeds due to one or more of the following reasons. I) Higher cost III) May not be available to fish farmers in small quantity III) May not be available in the door step of the fish farmers at remote villages.

Farm made feed is only the answer to bridge all these gaps for a small farmer. As a traditional practice fish farmers are advised to provide groundnut oil cake or soybean mill and rice or wheat bran in a definite proportion as fish feed. The cake-bran mixture is either broadcasted or applied in dough form. This type of feed and feeding has some limitation also. I) Now- a- days groundnut oil cake and soyabean meal are not within the affordable cost in many places. II) A considerable amount of feeds are lost before fish consume the feed. Simple ways to get rid of the above two problems are use of locally available cheap feed ingredients and on farm preparation of feed. Other oil cakes such as sun flower oil cake, til oil cake, lin seed oil cake, mustard oil cake etc. can also be used in fish feed along with barns of rice, wheat, maize and other cereals. Whatever the cost and type of the ingredient, our aim is to produce a feed with protein (24-25%) and lipid (6-8%).

Table 1. Some locally available fish feed ingredients & their crude protein and lipid value

Ingredient	CP%	CL%	Ingredient	CP%	CL%
Groundnut Oil Cake (GNOC)	40-45	6-8	Soybean Cake	45-47	1-3
Mustard Oil Cake (MOC)	35-37	5-6	Rice Bran	10-12	10-12
Sunflower Oil Cake (XOC)	30-32	10-12	De-oiled Rice bran	15-18	1-2
Linseed Oil Cake (LOC)	30-32	20-22	Wheat bran	11-14	2-3
Till Oil Cake (TOC)	35-36	4-5	Rice polish	12-18	12-14
CP: Crude protein		CL: Crude lipid			

Table 2. Some locally available cheap ingredient and their proportion in farm made feeds

Ingredients	Mixing ratio	Crude protein (%)	Crude lipid (%)
GOC : R.B	50:50	25	8.5
MOC: RB	60:40	25	7.0
SOC:RB	70:30	24	10
MOC:LOC:RB	45:15:40	24	10
TOC: RB	60:40	25	7

How to make feed pellets

- Ingredients in required quantities are milled and mixed together
- Grinding and mixing can be done by a portable small grinder cum pulveriser
- Add 2-3% of wheat flour (Maida)/ cassava as binder
- Steam the mixture on a fire place with some water, to reduce the anti-nutrient factors if any
- Cool the mixture, may add 1% commercial vitamin and mineral premix.
- Add required amount of water and make the dough
- Dough is the ready- mix to prepare feed pellets
- Process the dough in a portable small pellet machine.
- Use desired dice to get feed pellets
- Sundry the pellets and use in carp culture pond.
- Pellets can be crumbled by the above grinder to small pieces for nursery and juvenile rearing

Storage and preservation of farm made feed

- Farm made feed pellets should be used as fresh as possible
- It can be stored for a month
- Use polythene gunny bag to store the feed pellets
- Avoid moisture contamination as far as practicable to keep the feed in dry condition
- Sundry the fed pellet at least once in every fortnightly to avoid the fungal growth
- Fungal infested feed is not advised to be used in fish pond.

Application of farm made feeds

- One can broadcast the finely crumbled or powdered feed in the nursery pond initially for a week
- Course crumbles are applied in basket as feed dispenser device
- Feed pellets are given to the grow out fish or brood by hanging tray or hanging basket at different depth of the water in the pond.
- Apply the feed pellet in split dose as per the consumption.

