Formula 4 For Tilapia (3 months and older), and for Catfish and Common Carp (1 month and older)



Ingredients

- Finely chopped banana stems: 1 kg
- Fine rice bran: 1 kg
- Fermented fish water (from leftover fish waste): 1 L

Preparation Steps

- Mix the finely chopped banana stems and fine rice bran thoroughly.
- Add 1 liter of fermented fish water and mix well.
- Form the mixture into small balls.
- Feed the fish directly.
- Alternatively, sun-dry the balls for later use.

Materials needed

- Grinder and blender
- Buckets and sealed buckets
- Tray

Authors:

- Mr. Xiengmonechan KUNYATAM, Director of ADSA, < Xiengmonechan@gmail.com>
- Mr. Kolaka BOUANEDAOHEUANG, Director of Phan-Thin Social Enterprise, <kolaka.kb@gmail.com>

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Advantages

- Easy and inexpensive process
- Ensures high nutritional quality
- Natural foods promote natural food production: they boost plankton and floating plants

Recommendation for Small Fish

Use 1 kilogram of feed for every 4,000 fish, feeding once daily in the morning or afternoon.

From the beginning of the farming process until the fish are one month old, it is recommended to use fresh feed. Once the feed mixture is prepared, shape it into small round pellets and place them in a feeding container submerged in the fish pond. When the fish reach one month of age, switch to dry feed.



ALISEA Team

- Regional Coordinator: Lucie Reynaud <reynaud@gret.org>
- Laos National Secretary: Soutima Boudvised
 <soutima2506@gmail.com>







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Location of implementation Sndin, Hongngoua, Phonemuag, nakha and nanard Village, Nasaythong District, Vientiane Capital, Laos

Agroecological system:

3 *************************************				
Zone	Main activities	Climate	Rainfalls	Temperature
Plain	rice/ vegetable	Seasonally tropical (rainy season: June to October)	~ 1300 mm/year	Avg max: 35°C - Avg min: 14°C



Ingredients

Compost: 100 kgFine rice bran: 20 kg

• Hydrated lime mixed with water: 1 kg per 1 L

Bio-fermentation liquid: 1 L (commercially available)

Preparation Steps

- Production method: Crush all kinds of herbs into powder, tie them with gauze, put stones in them, tie them tightly, put them in a container and pour water into it.
- Soak the herbs and people in it for 5-10 minutes in the morning and evening for 15 days. It can be used and stored for 6 months.

For Catfish and common Carp

Ingredients

• Dried cow or buffalo dung: 10 kg

• Coconut meal or soybean meal: 3 kg

• Fine rice bran: 10 kg

Fresh fish or chicken intestines, or fish meal: 5

• Chicken or duck eggs: 15 kg

 Finely chopped water spinach, morning glory, or duckweed: 4 kg

• Cooked sticky rice or regular rice: 2 kg

• Yeast (from shops)

Preparation Steps

- 1. Place all raw materials (except yeast) into a bucket and mix thoroughly.
- 2. Add yeast (if making feed for catfish or frogs, use regular water).
- 3. Mix until the mixture reaches about 60% moisture. When forming pellets, no water should drip from your hands.
- 4. Feed the mixture into a grinder to form pellets.
- 5. Dry the pellets on a tray or use them fresh.

Formula 3 For Catfish and common Carp

Ingredients

• Fresh snail bodies: 2 kg

Cassava: 1 kg

Corn kernels: 1 kgDried sticky rice: 1 kg

Ripe bananas: 1 kg

• Fresh water spinach: 1 kg

• Fine rice bran: 1 kg

Preparation Steps

- 1. Pound and finely grind the snails.
- 2. Finely grind the cassava.
- 3. Mix the cassava and corn thoroughly until well combined.
- 4. Blend all the prepared ingredients together.
- 5. Form the mixture into small balls.
- 6. Sun-dry the pellets on a tray.

Recommendations for Feeding Herbivorous Fishs

1 - Prioritize Plant-Based Feed

Catfish and common carp are naturally herbivorous or omnivorous, so their diet should mainly consist of vegetables, aquatic plants, and agricultural by-products.

Avoid excessive protein-rich feeds, such as meat or fishmeal.

2 - Avoid Overfeeding

Overfeeding leads to decomposition, causing water pollution with high levels of ammonia and nitrites, and oxygen depletion.

Poor water quality weakens fish immunity and can lead to diseases.

Feed small portions 2-3 times daily and observe if the fish consume all feed within 10–15 minutes. Remove uneaten feed promptly to prevent spoilage.

3. Adjust Feeding Based on Season

Fish eat less in cold weather— reduce feed quantity.

Increase feed slightly during warm months when metabolism is higher.

4 - Regularly Monitor Water Quality Using Rapid Test Kits

Check pH, ammonia, and dissolved oxygen levels frequently.