

# Cost and return analysis of freshwater prawn culture in

## Assumptions

Pond culture	0.05 ha (500 m <sup>2</sup> )
Culture period	4-6 mos.
No. of cropping	1 cropping
Stocking rate	5 pcs/m <sup>2</sup>
Postlarvae requirement	2,500 pcs
Postlarvae cost	P2.50/pc
Survival rate	40%
No. of stock recovered	1,000 pcs
Size of harvest	20 pcs/kg
	(50g average body weight)
Total yield	50 kg
Price/kg	P350.00
Total sales	P17,500.00
Feed requirement	P3,000.00
Feeds conversion ratio	1.5
Total feeds required	150 kg
Cost of feeds	P3,000@P20.00/kg
Fertilizer requirement	P1,500.00

## Production cost per cropping (2 croppings/year)

Post larvae at 5pcs./ sq.m. (2,500 pcs @ P2.50)	
	6,250.00
Feeds (150 kgs @ 20.00/ kg)	3,000.00
Fertilizer/chemicals	1,500.00
Labor	600.00
Travel/shipment	<u>1,500.00</u>
	P 12,850.00
Construction Cost	400.00
Farm Implements	500.00

## Sales

500 m <sup>2</sup> x 5 pcs. PL/m <sup>2</sup> x 2 croppings	
= P 5,000 less 60% mortality	
5,000 pcs x 40% recovery @ 20pcs/ kg	
= 100 kg x 350.00/kg	
= P 35,000.00	

**Total Project Cost** = Capital Cost + Working Capital  
 = 3,500 + 12,850  
 = P 16,350

**Net Income Before Tax**  
 = Sales - (Production + Depreciation)  
 = 35,000 - (26,900 + 900)  
 = 35,000 - 27,800  
 = P 7,200

**Net Income After Tax**  
 = Net Income Before Tax - 15% provision  
 = 7,200 - 1,080.00  
 = P 6,120

**Return of Investment** =  $\frac{\text{Net income after tax}}{\text{Investment cost}} \times 100\%$   
 =  $\frac{6,120.00}{16,350.00} \times 100\%$   
 = 37.43%

Layout and production:



ISO 9001:2000

BUREAU OF AGRICULTURAL RESEARCH  
 Department of Agriculture  
 RDMIC Building, Visayas Ave.  
 cor. Elliptical Rd., Diliman, Quezon City  
 Tel. No.: (02) 928-8505  
 Website: <http://www.bar.gov.ph>  
 E-mail: [rd@bar.gov.ph](mailto:rd@bar.gov.ph)

For more information on *ulang* culture, please contact:

Bureau of Fisheries and Aquatic Resources  
 Department of Agriculture  
 Regional Office II, Tuguegarao City  
 Tel. No. (078) 844-4252 / 844-4261  
 TeleFax. No. (078) 844-5331 / 846-3661  
 E-mail: [bfar\\_ro2@yahoo.com](mailto:bfar_ro2@yahoo.com)

# Grow-out Farming of



**Making technology work for agriculture,  
 fisheries, communities, people,  
 and industries**

# Guide to grow-out and harvesting of ulang in

**F**reshwater prawn is an indigenous aquatic species in the Philippines more popularly known as *ulang*.

There are 15 species of freshwater prawn in the Philippines but the *Macrobrachium rosenbergii* is the most popular for culture because of its impressive growth performance and ability to survive and grow in turbid water conditions.

*Ulang* is an alternative high-value species with wide market acceptability both local and foreign. It grows fast, can tolerate moderate temperature and salinity changes, and can be cultured in ponds, tanks, cages, and rice paddies. They feed on anything such as terrestrial animal feeds, fish feeds, kitchen leftovers, vegetables, etc.

## Guidelines to ulang culture:

### 1. Pond draining

Collect and eliminate old stocks, predators, and unwanted species.

### 2. Pond poisoning

Application of biodegradable organic materials such as tea seed cake and tobacco dust to kill all unwanted species.

### 3. Pond washing



### 4. Application of lime

Rate of application is 100 g/m<sup>2</sup> or 1,000 kg/ha.

### 5. Leveling of pond bottom

Remove excess mud and dirt. Ensure complete draining and facilitate ease of seining (catching fish) during harvesting.

### 6. Sun drying

Sun drying helps eliminate and evaporate toxic gases trapped under the soil.

### 7. Screening of water (inlet and outlet)

This prevents entrance of unwanted species and escape of stocks.

### 8. Installation of artificial shelters

Artificial shelters are placed in the nursery/grow-out ponds to serve as hiding place of the post-larvae during molting. Arrange the shelters in the pond (20-30 pcs/1,000 m<sup>2</sup>).

Artificial shelter is needed because when prawns are soft-shelled (molting), they will be eaten by the hard-shelled prawns. Bamboo twigs, sampaloc stems, PVC pipes or recycled materials like nets, bricks or stones, and recycled mineral bottles can be used.

### 9. Basal fertilization

Use organic fertilizer (chicken manure): 1,000-2,000 kg/ha/mo.

### 10. Filling the pond with water.

Fill the pond with water from 1.0 m to 2.0 m deep.



### 11. Stocking of postlarvae

Acclimatize the prawn juveniles into the pond surface for at least 20 minutes before releasing them in the pond to prevent thermal shock that will cause delayed mortality.

## Harvesting of ulang:

Harvesting of *ulang* can be done when they reached the marketable size, after 5-6 months from stocking. *Ulang* can be harvested through selective or total harvesting.

**Selective harvesting.** This is done after 5 months of partial harvesting using seine nets. The bottom of the seine net should be kept intact in the pond bottom to avoid escape of the prawn.

**Total harvesting.** Seine first before draining the pond. Collect by hand.

## Marketable size and weight of prawn after 6 months of culture

Sizes	Pieces/kg	Length (cm)	Weight (g)
Small	21-30	9-12	30-50
Medium	15-20	13-15	51-80