

MILKFISH GROW OUT IN PONDS

Milkfish locally known as Bangus is the national fish of the Philippines. It is the major aquaculture finfish species raised in the Philippines, contributing more than 80% of the total national brackish water pond production annually. Region 02 is gifted with vast swampy land for fishpond purposes. Potential broakers, wholesalers and retailers are coming to pond owners to contract bangus production. Pond operation usually includes the following species phrases; pond preparation and stocking, nursery phrase, transition phrase, grow out and harvest. These are established method for pond operation but farmers practice a lot of flexibility and variability in their operations.

II. Brief Technical Aspect

Site selection

Water supply- is the foremost factor to consider in selecting a fish pond site. The site must be accessible to adequate brackish water supply throughout the year and from pesticides contamination and pollution.

Soil- clay, clay loam and sandy loam soils with deposits of organis matter of about 16% are best for fishponds.

Topography- choose flat terrains for easier excavation and leveling with most desirable range of PH 7-9

Availability of quality fingerlings, cheap skilled labor, accessibility to market and peace and order condition.

Stocking density

Extensive – 3,000- 5,000/ha

Semi intensive – 10,000/15,000/ha

Intensive – 20,000-30,000/ha

Pond Preparation

- *drain the pond, remove debris and level the pond bottom
- *dry the ponds until the soil cracks (1-2 weeks)
- *install fine mesh nets at the gates to prevent loss of stock and entry of predators
- *fill the pond with water 5-15 cm deep and then drain the water out after 3 days
- *repeat the drain and dry cycle once or twice if necessary
- *Broadcast lime plus urea or ammonium sulfate together to act as pesticide
- *Broadcast organic fertilizer such as chicken manure (2 tons/ha)
- *Broadcast inorganic fertilizers such as urea (20 kgs/ha) and ammonium phosphate (50 kgs/ha) 2-3 days later
- *Fill the pond with water gradually to 5cm deep then 10 cm then 15cm.
- *Lablab will grow if pond conditions are right
- *Fill the pond to 30-40cm when lablab is well established

Fish Transport and stocking

- *Transport or transfer fry or fingerlings early morning or late afternoon
- *Drin the pond slowly and drive the fish gently into other ponds
- *If fish must be packed in bags, allow them to empty guts. Use clean water and oxygen in Packing
- *Allow fish time to acclimate to that temperature and salinity of the new pond
- *Stock fish of one size for one time harvest or several sizes for the multi harvest

Feeding

- *Maintain the growth f natural food by applying fertilizer during the crop cycle
- *No need to feed fish in ponds with adequate natural food
- *Give supplement diet or complete feed when food is inadequate
- *Transfer growing stocks to larger, newly prepared ponds with natural food

- *Use appropriate feeding rate and schedule for the size of the fish
- *Do not feed fish when dissolve oxygen in ponds is less than 3 ppm

Water Renewal and stock monitoring

- *Watch the pond to detect changes and fish distress
- *Change pond water every two weeks or whenever necessary
- *Sample stock and monitor growth

Harvest

- *Check market situation and milkfish price
- *Drain ponds slowly and harvest the fish at night or early morning
- *Seine the fish or use water current to draw fish into a clean harvest area
- *Place harvest in chilling tank with blocks of ice for each ton of fish
- *Pack harvest, and sell fish chilled or quick frozen to maintain freshness

III. Investment Cost

Production Area -----	1 ha
Culture Period/Cycle -----	4-5 months
Stocling Rate -----	15,000/ha
Average Survival rate at harvest -----	80%
Average body weightat harvest-----	166.66 grams
Average yiel/year -----	4 tons/year
Farm gate price (current) -----	85.00/kg.

Development Cost and Equipment

Earth works/exacavation -----	150,000.00
Caretaker house -----	15,000.00
Water pump -----	65,000.00
Weighting Scale -----	2,500.00
Concrete Gates -----	50,000.00
Seine -----	10,000.00
Hapa -----	5,000.00
Showel and digging blades -----	2,500.00
Flashlight -----	1,200.00
Pales -----	1,000.00
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Costing Cost

Fingerlings -----	37,500.00	
Agriculture lime (2 tons/ha) -----	4,000.00	
Chicken manure (2 tons/lha) -----	60,000.00	
Urea (20kg./ha) -----	6,600.00	
Labor cost for pond preparation -----	5,000.00	
Salary of caretaker -----	12,000.00	
Ammonium phosphate (50kgs/ha) -----	1,500.00	
Marketing expenses -----	5,000.00	
Depreciation (10yrs) -----	30,220.00	155,600.00

Net income ----- 146,600.00

ROI- 48.51% /cropping
Pay back period - .97 year

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