

**Southeast Asian Fisheries Development Center**

**Aquaculture Department**

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Aqua Farm News

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1992

# Pond culture of mudcrab

Aquaculture Department, Southeast Asian Fisheries Development Center

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Southeast Asian Fisheries Development Center, Aquaculture Department (1992). Pond culture of mudcrab. Aqua Farm News, 10(2), 5-6.

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<http://hdl.handle.net/10862/2588>

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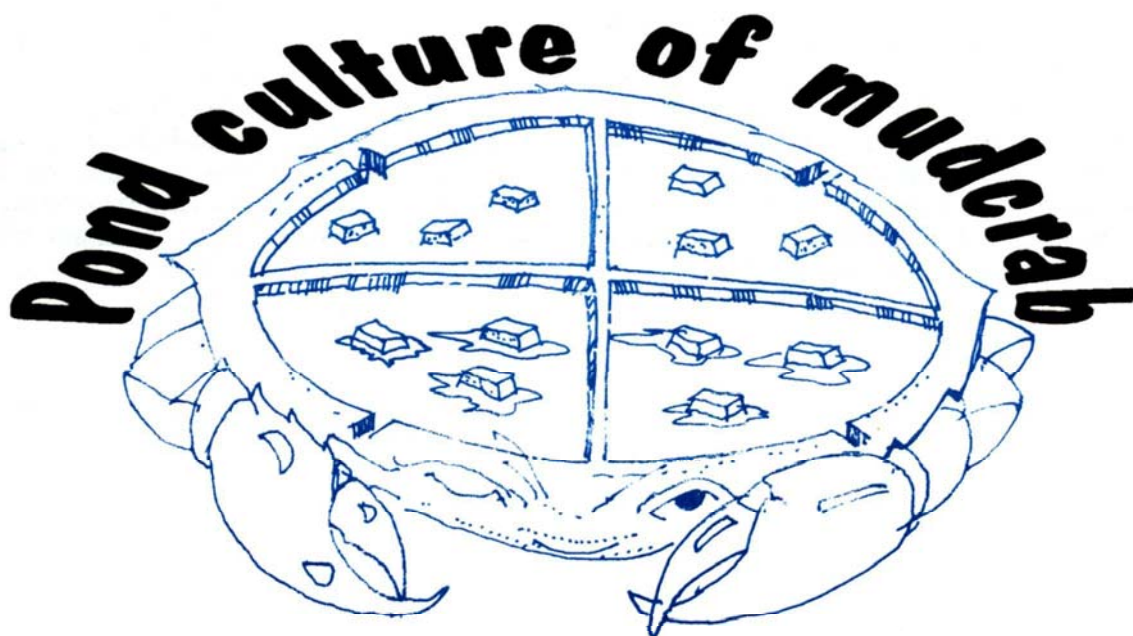
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Table 4. Comparative cost indicators of production for a 1-ha crab monoculture (1 run)

| Average cost<br>(₱/kg) | Stocking density (crab/ha) |              |              |              |
|------------------------|----------------------------|--------------|--------------|--------------|
|                        | 5000                       | 10 000       | 15 000       | 20 000       |
| Feed                   | 8.60                       | 10.80        | 19.25        | 20.20        |
| Juvenile               | 2.45                       | 4.89         | 7.69         | 9.06         |
| Labor                  | 4.91                       | 4.89         | 5.13         | 4.53         |
| Marketing              | 1.00                       | 1.00         | 1.00         | 1.00         |
| Debt                   | 1.28                       | 1.41         | 1.79         | 1.75         |
| Variable cost          | 17.55                      | 22.17        | 33.68        | 35.33        |
| <b>Total</b>           | <b>23.01</b>               | <b>27.75</b> | <b>39.85</b> | <b>40.94</b> |

The researchers concluded that 5000-10 000 crabs/ha stocking densities are most profitable. They urged traditional milkfish growers to allocate a portion of their ponds for mudcrab culture to take advantage of the higher returns on investment and to diversify their crops.

Source: RF Agbayani, DD Baliao, GPB Samonte, RE Tumaliuan, RD Caturao. 1990. *Economic feasibility analysis of the monoculture of mud crab (Scylla serrata) Forsskal.* **Aquaculture** 91:223-231.



The crab *Scylla serrata* Forsskal, locally known as *alimango*, is one of the highly esteemed and most expensive edible crab in the Philippines. The female, when the gonads are well developed, commands nearly double the price of males.

### The crab pond

Pond is preferably located in estuarine areas where tidal difference is great to facilitate water change. Salinity should be within 15-30 ppt. Sandy bottoms are preferred.

The size of the pond is usually small, about 350-500 m<sup>2</sup>. One good layout is to divide a square pond into four smaller compartments with a 1.5 m<sup>2</sup> water inlet tank in the center. When water enters, the crabs congregate in the tank and can be caught there.

Pond walls made of mud blocks are fenced with bamboo mattings 1.5-2 m high. These are staked vertically 1 m from the inside edge of the dike's crown and 30 cm or more into the soil to prevent the crabs from escaping either by climbing over the bamboo matting or by burrowing through the dikes during low tide.

## Pond preparation and management

Construct, install, or repair dikes, walls, gates, and water inlet tank. In ponds with mud dikes, install bamboo mattings. Check leakages, if there are any. When the pond is ready, let the water enter up to 1 m or more. According to field reports, the incidence of crab holes can be minimized or prevented by maintaining the water at least 1 m deep. Water maintained at this depth can provide sufficient coolness to the pond bottom. Thus, crabs will no longer look for a much cooler refuge, like burrowing into the dikes.

Change about two-thirds of the water daily; also maintain the average 1 m depth. Install soil seal after each change of water. One fishery aide can oversee a 500-m<sup>2</sup> crab pond.

## Stocking

Stock the crabs from April to September. This is done two days after pond preparation at 7-8 am. Both male and female crabs may be stocked. The stocking rate is generally 3-5 crabs/m<sup>2</sup>, depending on the water exchange capacity of the pond. The size of the young crabs stocked varies from 1.5-3 cm or some may be larger but less than 60 g in weight. Record the weight of the crabs before stocking.

## Feeding

The feed usually given are snails, trash fishes (tilapia, slipmouth, tenpounder, shark), fish viscera, kitchen left-overs, and almost any kind of animal food. Chop these and broadcast or place on the bricks (if there is any) on the bottom of the pond. Soft-shelled snails, mostly freshwater species, are preferred. If hard snails are given, crack it first. According to experienced crab farmers, snails are the most important feed for the maturation of the crabs, thus, plenty of it must be given.

The quantity of feeds given daily is 10% of the total weight of crabs. Feed the crabs once a day specifically in late afternoon because crabs usually eat after dark. Give more feeds if the crabs are actively searching for food. Also, give enough food to prevent cannibalism.

Conduct sampling every 15 days. Collect 15 samples per thousand of stocked crabs.

Record the average weight, length, and width.

## Harvesting

In 5-6 months, the crabs can be harvested. Market-sized crab has a carapace width of 12-15 cm or weighs 220-250 g. Survival rate is 70%.

Male crabs which have many copulations have very little meat and demand low price. This happens very often after September. To avoid this, farmers usually harvest before September.

Harvest by hand with the help of a small dip net, large dip net, or crab lift net baited with trash fish. If needed, place plastic cement pipes on the bottom. Lift it from time to time to empty the crabs that hide there. But the most effective method is to catch the crabs in the water inlet tank as mentioned earlier.

## Marketing

Cultured crabs, male or female, with or without ovaries, may be sold. To determine the fullness of the ovaries, experienced farmers examine the crabs against the light or press the shell to determine if it is firm. When transporting, bind each crab with wet heavy straw rope to facilitate handling and to keep it moist. Crabs are sold either by number or by kilo.

Source: SV Seville, LA Barcenas, RP Graboso. 1987. *The Mud Crab Culture*. **Reachout** 6(1), Oct-Dec.

