

Preliminary studies on the Monoculture of P. Monodon

I. OBJECTIVES:

1. To determine survival rate of prawn fry using HAPA NET as nursery for 3 to 4 weeks with and without aeration.
2. To determine the survival rate of prawn from fry to marketable size using different sheltering methods in rearing ponds for a culture period of 6 months.
3. To determine the efficiency of some locally available materials as shelter in rearing ponds.

II. MATERIALS AND METHODS

One to two hectare pond from each cooperator shall serve as study areas. A "hapa net" made of sack cloth material shall serve as the nursery for a period ranging from 3 to 4 weeks. Each cooperator must prepare a "hapa net" measuring 3 x 15 (or 4 x 20) square meters.

From the nursery, the juveniles will be released to the rearing ponds at a stocking rate of 2 fry per square meter of water surface. Actual count of the juveniles from the "hapa" will be made to determine the survival rate before they are released to the rearing pond.

Fertilization when necessary may be done two weeks prior to stocking. Natural food will be grown by traditional method. Average depth of the pond shall be maintained at 80 centimeters throughout the culture period of 6 months.

Physico-chemical factors like temperature, dissolved oxygen, salinity, alkalinity and pH will be taken daily. Data related to weather conditions, light penetration and water color will also be recorded daily.

To estimate population and record the growth rate, monthly sampling will be made.

Food and feeding will also be studied along with the qualitative and quantitative analyses of various organisms found in various ponds.

Samples of bottom soil from various ponds will be analyzed.

III. RESEARCH DESIGN:

<u>Pond No.</u>	<u>Nursery Plan</u>	<u>Rearing Plan</u>	<u>Sheltering</u>
1	The fry to stay in HAPA NET for 3-4 weeks with aeration	Juveniles to be stocked in 2 ha. ponds without shelter. Culture period-6 months Stocking rate - 2 fry/square meter.	Without shelter
2.	The fry to stay in HAPA NET for 3-4 weeks with aeration	Juveniles to be stocked in 2 ha. ponds with shelter. Culture period-6 months Stocking rate - 2 fry/square meter	a. Coconut leaves or Api-api branches as shelter. b. Bamboo twigs or bundles of grasses
3	The fry to stay in HAPA NET for 3-4 weeks without aeration	Juveniles to be stocked in 2 ha. pond without shelter. Culture period- 6 months Stocking rate-2 fry/square meter.	a. Coconut leaves or Api-api branches. b. With bamboo twigs, or bundles of grasses as shelter.

IV. REQUIREMENTS

A. Member Cooperator:

1. Total area-
2. Number of cooperators -
3. Minimum from each member:  
1-2 hectare clean ponds with strong gates and dikes, levelled bottom and predator free.
4. Field house (one nipa hut) to serve as field laboratory.
5. "Hapa Net" measuring 3 x 15 meters (or 4 x 20 m)
6. Manpower: one full time pond caretaker.

B. SEAFDEC:

1. Fry: 40,000
2. Equipment and supplies for physico-chemical and biological analyses.
3. Technical assistance:
  - a. 2 (biologist) prawn culturists
  - 1 chemist

V. PLAN OF WORK:

<u>Description</u>	<u>Duration in Weeks</u>	<u>Remarks</u>
Organization of Cooperators	5 days	To begin October 9
Nursery preparation	2 weeks	To begin October 14
Culture	24 weeks	To begin October 30