

## Drag Net used for Harvesting *Vannamei* Shrimp of Tamil Nadu

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### SUMMARY

In Tamil Nadu shrimp farmers are harvesting the shrimps both summer and winter time by widely using of dragnets. This will helps to quicker harvest of shrimp in large size or small size of the pond. This type of net was designed later the year 2009 exactly would happen species diversified from *monodon* to *vannaemi*. Especially this net designed and fabricated by experienced fishermen. It will help to generate the money for fishermen livelihood for the other hand. The aqua farmers side to get saving time and also quicker packing of harvested shrimps. The general method of technical specification of drag net is discussed details in this article.

### INTRODUCTION

Harvesting is one of the important role involved in the shrimp farming industry. Successful harvesting can be achieved if the shrimp can be harvested in good condition with in short period of time. Materials should reach to the buyers/ processor in good and fresh condition without that do not get the better price for culturing shrimps. Harvest net play a vital role for time saving and harvesting the shrimps in good condition. Nowadays everywhere shrimp farming harvesting the shrimps only through the Drag net used very few of them harvested the shrimp through sluice gate. Tamil Nadu is endowed with rich resources of coastal zones in the form of brackish water estuaries for shrimp culture. The brackish water resources of Tamil Nadu are about nearly 56,000 ha. At present shrimp farming has been developed in 14 coastal district of Tamil Nadu in about 4500 ha. The harvesting methods should not damage or contaminate the shrimp with accumulated sludge waste. Complete harvesting has been carried out by draining the pond water through a bag net and rest of shrimps by hand picking. The average culture period of farming is around 110-125; shrimps will grow to 20-30 gm size. It is possible to get two or three crops in a year. Harvested shrimps can be kept adequate layers of crushed block ice while packing before transporting the consignment to processor. To get better price for shrimps it should reach to processor short time because give better yield. This article will give details about the specification of Drag net used to harvest the shrimps in culturing ponds.

### Methods of Harvesting of shrimps

Two methods of harvesting the shrimps are generally practiced on aquaculture farms. These are either by draining the pond water and collecting the shrimps in a bagnet or by netting the shrimps within the pond. The first method of harvesting the ponds and outlets should be appropriately designed and be able to completely drain the pond water within 4-6 hrs. A bag net should be able to be fixed to the outlet or sluice to collect the shrimp that are carried out by the flouring water. In ponds that can be drained at low tide, the harvest should be make whenever is possible. Nowadays everywhere, after *monodon* species, *vannamei* culturing farms harvesting practicing by this method only. When netting the shrimp within the pond, either a large seine net can be used. The water level of the pond should be reduced to 0.75 – 1.2 m deep and workers will need to go inside the pond for netting. This net used to drag over the pond based on materials. Because materials is more dragging the pond go with 3 or 4 times, less material means go with 2 to 3 times. First pond area dragging 50%, besides accumulation of catches taking the shrimps through collection net or *kacha* to store in cement tank or FRP tanks filled with ice for killing purpose before going to packing.

### Cost details of drag net making

Fabrication cost of Rs.65,000-70,000/drag net, each hapa net making cost of Rs.15,000, collection bag (*Kachcha*) making cost is Rs.7,500. Nearly 20 to 25 collection bags needed for shrimp harvest of one ha pond. Labour cost is based on the materials harvest not in size of the pond if i.e., 5000 kgs harvesting cost is Rs.25,000, 3000 kgs harvest cost is Rs. 15,000 (Including Transportation). Harvest net charge is around Rs.3000, Labour sharing Rs.500 to 700, food will be provided by owner of the shrimp farms.



Cover half side of pond



Cover full size of pond



Dragging over the pond



Catches get accumulation



Collection net or *kachcha* bag



Final collection of shrimps

**Technical Specification**

Specification	Details
Main webbing	Polyethylene / Nylon
Twine type	Multifilament
Length of the net	80-100 m
Height – left corner side	13 m
Centre	18 m
Right corner side	13 m
Mesh size	20 mm
Length 1m	120 meshes

<b>Floats &amp; Sinkers</b>		
No of floats		600-650
Float material		Plastic
Cost of float		Rs.11/ Piece
Float diameter		95 mm
Sinker material		Lead
Weight of sinker used		20 -100 gm
Fixing the sinkers	Left corner	50 gm wt- 50 nos.
	Centre	100 gm wt – 50 nos.
	Right corner	50 gm wt- 50 nos.
<b>Ropes</b>		
Material		Poly propylene
Head rope used - 30 mm		80-100 m
Head rope length 1 m		50 meshes
	Height 1 m	6 meshes
Foot rope nylon used – 50mm		80 m
Foot rope length 1 m		30 meshes
	Height 1 m	8 meshes
Nylon net for both side 20 mm (MS) Length		10 m
	Height	6 m
Hapa of the net length		16 m
	Height	15 m
Collection bag ( <i>Kachcha</i> ) for carrying the shrimps		1 m
Breadth		
	Height	1.5 m

## CONCLUSION

Normally 7 gm to 50 gm size of shrimp harvested through these nets. Almost more than 95% of shrimps harvesting through these nets left over in the pond after draining the water will get by hand picking. Comparing the *monodon* harvest through only outlet also getting time delayed; but *vannamei* harvest is very easily and quickly harvests the shrimps. 15 to 20 labours are involved during the harvest. Quick harvest may get better price to shrimp farmer and time concern to get better yield to processor. Shrimps harvested by bag net and hand-picking should be kept it separately in cement tank or FRP tanks filled with ice for killing purpose of shrimps. Those hand-picked shrimps should be thoroughly washed with clean water and packed separately. Clean water should be used for washing shrimps and ice made up of potable water should be used for packing. Do not use any chemicals while washing the shrimps or chill killing without knowledge of processors. Adequate use of ice will ensure the chilling of shrimps. Harvested shrimps can be packed in plastic tubs with ice at 1:1 ratio (i.e. 1 kg of shrimps versus 1 kg of ice) for better preservation. Before stacking the packed plastic tubs one above the other, the cleanliness of the bottom of each tub should be attended to. The packed tubs should reach the processing plants quickly without any delay, which will ensure better quality.

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