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Minimizing the drip loss in Frozen peeled and deveined shrimps (Metapenaeus dobsoni)

Introduction

The Indian seafood industry is mainly dependent on the export of frozen shrimp and fishes. At present export of frozen shrimps accounts for more than 70% mainly engaged in the production of frozen shrimps. Different types of frozen products like head on shell on shrimp, headless shell-on shrimp, peeled and deviened shrimp, peeled, deviened and cooked shrimp, individually quick frozen and few value added products like breaded and battered shrimp are being exported. Among different styles of frozen products, it is head less shell on and peeled and deveined shrimps, which has dominated international market.

Market

The market for Indian shrimp is very good. The International market is mainly for Japan, America, Europe and Australia. The market for Middle East is also bright. Higher price can be realized if value added products like breaded and battered shrimps, individually quick frozen shrimps and cooked and frozen products are made and exported as the market potential high.

Raw materials

Raw materials: The raw material (fresh shrimp) should be fresh, free from pathogens, devoid of black spots or softening of tissue.

Process:

The process involves the following steps:

Fresh shrimps

Beheading, peeling and deveining

Dip treatment in CFTRI salt solution

Draining of shrimps

Packing and freezing

Packing frozen blocks into master cartons

Storing

CFTRI has standardized the technology and general methods of the dip treatments for minimizing the drip loss in frozen peeled and deveined shrimp. Apart from the procedure for quality control, packaging and packaging material specification, the institute also provides equipment details for the new units.

Plants and Machinery

Principal equipments: Plate freezers, tunnel freezers, cold storage, chill room

and flake ice plant.

Auxiliary equipments: Laboratory equipments like autoclave, ovens, incubators,

centrifuge, analytical balance etc.

Land 1,500 sq.ft
Building 750 sq.ft
Plant and machinery Rs.54,00,000

Production Capacity - Estimate

For installed capacity of 5-7 Tonnes / day (finished product)