

---

# EXPERIMENT 15 PREPARATION OF BREADED “PEELED AND DEVEINED SHRIMP”

---

## Structure

- 15.1 Introduction
  - Objectives
- 15.2 Experiment
  - 15.2.1 Principle
  - 15.2.2 Requirements
  - 15.2.3 Procedure
  - 15.2.4 Observations
  - 15.2.5 Calculations
  - 15.2.6 Results
- 15.3 Precautions

---

## 15.1 INTRODUCTION

---

Regular “Breaded Shrimp” are frozen raw breaded shrimp containing a minimum of 50 % of shrimp material. White or black tiger shrimp is used for the preparation of this product.

### Objectives

After performing this experiment, you will be able to:

- prepare coated Peeled and Deveined shrimps;
- calculate the yield at different stages of processing; and
- calculate the pick up.

---

## 15.2 EXPERIMENT

---

### 15.2.1 Principle

The main aim is to give you the ability to prepare a normal coated shrimp.

### 15.2.2 Requirements

- White Shrimp or Black Tiger Prawns in the minimum size range 110/130 count/ kg
- Batter mix
- Bread crumbs
- Brine solution
- Citric acid
- Potable water
- Processing table
- Analytical balance

- Refined vegetable oil
- Petri dishes
- Cutting boards
- Plastic trays
- Small paring knives
- Scissors
- Thermoform containers/Pouches made of 12 μ plain polyester laminated with 118μ LDPE
- Digital thermometer
- Small fryer (Electric/Gas)
- Air blast freezer
- Deep Freezer

### 15.2.3 Procedure

- 1) Wash the whole shrimp in potable water.
- 2) Remove the head.
- 3) Peel and devein the shrimp as described in Experiment 11.
- 4) Wash in chilled potable water, cold blanch in 3% brine solution containing 0.1% citric acid for 3 minutes and drain off.
- 5) The blanched material is pre-dusted with the dry batter mix. The excess pre-dust adhered to the product is then removed by shaking.
- 6) The pre-dusted shrimp is then coated with a conventional (adhesive) batter and breaded.
- 7) The product is then pre-fried, cooled, packed, blast frozen and stored in a deep freezer.

### 15.2.4 Observations

Weight of whole shrimp : A g

Weight of peeled and deveined shrimp prior to coating : B g

Weight of peeled and deveined shrimp after coating and pre-frying : C g

### 15.2.5 Calculations

Yield of coated peeled and deveined shrimp (%) from whole raw shrimp =  $\frac{C}{A} \times 100$

Yield of coated peeled and deveined shrimp from peeled and deveined shrimp (%) =  $\frac{C}{B} \times 100$

Pick up of coating (%) =  $\frac{C - B}{C} \times 100$

### 15.2.6 Results

Yield of coated peeled and deveined shrimp from whole raw shrimp is .....%

Yield of coated peeled and deveined shrimp from peeled and deveined shrimp is .....%

Pick up of coating of given sample is .....%

---

### 15.3 PRECAUTIONS

---

- Always use fresh shrimp for the experiment.
- While taking sample weight, make sure that representative samples are taken at each stage.
- Keep the shrimps as well as material at different stages of processing in iced/ chilled condition to avoid temperature abuse.
- During breading, care should be taken to remove “clumps” formed in the bread crumbs. These have to be replaced by fresh crumbs.
- Use aprons, headgear and mouth gear for hygienic handling of the product.
- Ensure minimum handling of the material.