# FOOD TECHNOLOGY: FOOD PRESERVATION

By

#### Dr. PRAMOD KUMAR MAHISH

Asst. Professor & Head (Biotechnology)

Govt. Digvijay PG College Rajnandgaon (C.G.)

pramod.mahish@rediffmail.com

#### 1. HIGH TEMPERATURE METHOD

#### Canning

- 1810 Peter Durand Use Tin Container for Food Preservation
- Process
  - Washing of Food
  - Bleaching with hot water
  - Cans filled with food
  - Heating high acid food 100°C, low acid food 121°C
  - Seal heat under pressure cool packing
- Not 100% sure method
- Some bacterial sp. may survive

#### HIGH TEMPERATURE METHOD

#### **Pasteurization**

- High temperature short time method (HTST)
- 71.7°C for 15 sec.
- Long temperature long time method (LTLT)
- 62.8°C for 30 sec.
- Ultrahigh temperature method (UHT)
- 140°C for 15 sec.
- 149°C for 0.5 sec.

#### 2. Low Temperature treatment

- 5°C for Food Preservation
- 10°C for Fruits and Vegetables
- -20 for Ice Cream

#### 3. Drying/Dehydration

- Sun Light
- Air
- Solar air drayer
- Smoking



#### Traditional Fish Processing and Economic Status of Fishermen of Central India with Special reference to Rajnandgaon, Chhattisgarh, India

Pramod Komar Mahish

Department of Biotechnology, Govt. Digvijay Post Graduate (Autonomous) College, Rajnandgaon, Chhattisgarh, INDIA

Available online at: www.isca.in, www.isca.me Received 22<sup>nd</sup> July 2015, revised 4<sup>th</sup> August 2015, accepted 7<sup>th</sup> September 2015

#### Abstract

Traditional fishing and fish processing are very significant activity in Chhattisgarh. The fishing and fish processing in Chhattisgarh is related with the culture, employment and protection of food. This present study was done to find out the traditional methodology of fish processing in Rajnandgaon and also to recognize the economic status of fishermen involve in fish processing. Data was collected by a survey between July to December 2014 in five local markets and some colonies of fishermen. Personal interview and on sight observation was taken for the fish processing methodology, preservation technique and economic status of fishermen. A total of 15 species of processed fish was collected during the investigation period. Half burning and sun drying were found as a common traditional method for processing of fish. Bamboo stick made vessels and fluangi was founded as local technique adopted for the preservation of fish. The economic status was found not enough for the fishermen. The fishermen want to large scale production of processed fish to flowiest the business. The active involvement of females was found during the investigation. The processed fish obtained from the traditional methodology were found cheap and satisfactory to the customers.

Keywords: Economic status of fishermen, fish processing, Rajnandgaon, Sheonath River, traditional methodology.



Figure-2(N)
Half burned Chanda nama



Figure-2(O) Sun dried *Chanda nama* 

### 4. Lyophilization

- -20°C
- Freeze
- Coffee, meat
- Transporting

#### 5. OSMOTIC PRESSURE

- Principle Osmosis
- Salting use of salt
- Sugaring use of sugar
- Example jam, jelly, pickle, honey etc.

#### 6. CHEMICAL TREATMENT

- Sorbic acid syrup, salad dressing, cake
- Benzoic acid FAD Approved beverage, preservative
- Propionic acid butter, cheese
- Ethylene oxide (gas) preservative spice, nuts, dry fruits
- Nitrites meat preservatives

## 7. OIL PRESERVATIVE

• Pickle

