CHAPTER-III
MATERIALS
AND
METHODOLOGY
MATERIALS AND METHODS

A experiment was conducted for “DEVELOPMENT OF FLAVOURED BEVERAGE FROM A BLEND OF PEANUT MILK & GUAVA PULP” the experiment was carried out in the research lab of Warner School of Food and Dairy Technology, Sam Higginbottom Institute of Agriculture, Technology & Science(Deemed-to-be University) Allahabad 211007, U.P India

Procurement and collection of ingredients:

a) Peanut Seeds - Peanut seeds was procured from local market of Allahabad

b) Condensed milk flavor - Condensed milk flavor was procured from local market of Allahabad.

c) Guava Pulp - Guava pulp procured from local market of Allahabad.

TECHNICAL PROGRAMME:
Following technical programe was followed to achieve the objectives:

Preparation of peanut milk:

Peanut seeds was first be cleaned and soaked overnight (12 hrs) at room temperature with water to seed ratio 1:2, v/w. The soaked seeds will be drained and the re-hydrated seed was undergo wet grinding with water in the ratio 1:8 w/v. The obtained was passed through double layered cheese cloth to obtain Peanut milk.

Treatment Combination:

Proportion of peanut milk and guava pulp will be blended in the following ratio:

<table>
<thead>
<tr>
<th>Peanut Milk</th>
<th>Guava Pulp</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>5</td>
</tr>
<tr>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>
PLAN OF WORK

Peanut Milk
↓
Cleaning/Roasting
↓
Soaking (Peanut: Water: 1:2) 12 hrs. at RT
↓
Water draining off
↓
Wet Grinding (Peanut: Water 1:8)
↓
Filtration
↓
Peanut Milk
↓
peanut milk & guava pulp
↓
Blending of peanut milk and guava pulp
↓
Heating (80\(^0\) C for 5 min)
↓
Addition of sugar @ 7 % of blend
↓
Cooling @ (5\(^0\) C)
↓
Addition of flavor
↓
Flavoured beverage
ANALYTICAL TECHNIQUES:

Sensory evaluation:
The beverage was evaluated for the sensory attributes of color & appearance, consistency, flavor & taste and overall acceptability by panel of judges selected from Warner School of Food and Dairy Technology. 9 point Hedonic scale score card was used for the purpose.

Chemical analysis:

- **Fat**: Fat was estimated as per the standard procedure given in Hand Book of Food Analysis, SP:18(Part XI), 1981.

- **Protein**: Protein was estimated by Kjeldhal method as per the standard procedure given in Hand Book of Food Analysis, SP:18(Part XI), 1981.

- **Acidity**: Acidity was estimated by titration method as procedure laid down in manual of Dairy Technology, ICAR (1972).

- **Ash**: Ash was estimated by charring method as per the standard procedure given in Hand Book of Food Analysis, SP:18(Part XI), 1981.

- **Moisture**: Moisture content of the beverage was estimated as per the method delineated in Hand Book of Food Analysis, SP:18(Part XI), 1981.

- **Carbohydrate**: percentage of the product was estimated by calculation.

Microbiological analysis:

- **Coliform test**: Coli form of the product sample was estimated by SP: 18 (Part XI)-1981.

- **Total plate count**: TPC of the product sample was estimated by SP: 18 (Part XI)-1981.