

**Student study visit to community food and nutrition  
Extension unit, Govt. of India, Vijayawada.**

**Date:- 22-09-2017.**



**INTRODUCTION:**

When Food is available more than the present use, it is preserved for future consumption. Foods such as fruits and vegetables have a short growing season, and preservation makes them available throughout the year and avoids wastage of surplus crops. As a part of our curriculum, we have learned the preservation of fruits.

By the principle of osmosis, jams and jellies are preserved. Plasmolysis of microbial cells occurs during the preservation processes. Water is withdrawn from microbial cells when placed in a solution containing large amounts of dissolved substances such as sugar or salt.

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Firstly, we entered the preparation room at 9:00 am at the FOOD & NUTRITION BOARD, Autonagar, Vijayawada.; there was a big table in the room, and there are four ventilation (windows) around the table; many photographs were hung on the wall. The photos indicate the nutritional value of fruits and vegetables. There is a water tap in the room and big containers coated with Aluminum. There are many different instruments used for cutting fruits & vegetables. There is a stove to boil the ingredients. We followed our in-charge, Syed Vaziha Tahaseen, madam.

Up to 10:00 am, we heard the lecture of the junior nutrition sir; after that, we went to the office room to meet the head of the board, Mr. Sanjay. He told us about many vital points for a healthier life. We were enlightened about the primary importance of nutrients like vitamins, minerals, carbohydrates, fats, etc. He also made us understand the deficiency diseases of nutrients. We spent nearly 1 hour with sir

**Preparation of mixed jam:** We have already been familiarized with the ingredients of the mixed jam by the junior sir. He helped us in the preparation

### **Preparation of jam.**

\*Wash the fruits, peel them off, and cut them into small pieces.

\*Add 50-100ml of water and cook till the pieces become soft.

\*Pass through a sieve to get the pulp.



**Methods:-**

Mix pulp, sugar and boil till the endpoint is reached. Add citric acid just before removing the endpoint can be determined by looking for bubbles at the sides of vessels while heating by sheet method or plate method.

**Sheet method:-**

Take a small quantity of the boiling mixture in a wooden spoon and drop slowly. If the jam is ready, it will fall in the form of a sheet.

**Plate method:-**

Drop a small quantity mixture on a porcelain/ stainless steel plate. Cool and tilt the container; the jam is ready when the mixture slides down as a single mass.

**JELLY:-**

This can be prepared by boiling pectin-rich fruits like Guava or Wood apple in water, straining, mixing with the strained extract with sugar and acid, and boiling to a stage that will form a clear gel. An ideal jelly is clear transparent, and firm.

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## **NUTRITIVE VALUES OF FRUITS USED FOR preparation of JAM & jELLY**

<b>ITEM</b>	<b>ENERGY</b>	<b>PROTIEN</b>	<b>FATS</b>	<b>β CAROTENE</b>	<b>THAIMINE</b>	<b>NIACIN</b>	<b>RIBO FLAVIN</b>	<b>TOTAL FOLIC ACID</b>
<b>APPLE</b>	<b>59</b>	<b>0.2</b>	<b>0.5</b>	<b>0</b>	<b>--</b>	<b>0</b>	<b>--</b>	<b>--</b>
<b>PAPPAYA</b>	<b>32</b>	<b>0.6</b>	<b>0.1</b>	<b>666</b>	<b>0.04</b>	<b>0.2</b>	<b>0.25</b>	<b>--</b>
<b>BANANA</b>	<b>116</b>	<b>1.2</b>	<b>0.3</b>	<b>78</b>	<b>0.05</b>	<b>0.5</b>	<b>0.08</b>	<b>--</b>
<b>GUAVA</b>	<b>51</b>	<b>0.9</b>	<b>0.3</b>	<b>0</b>	<b>0.03</b>	<b>0.4</b>	<b>0.03</b>	<b>--</b>
<b>SUGAR</b>	<b>398</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

<b>ITEM</b>	<b>N</b>	<b>PROTINE</b>	<b>FAT</b>	<b>VITAMIN</b>
<b>APPLE</b>	<b>10</b>	<b>0.6</b>	<b>1.0</b>	<b>1</b>
<b>PAPPAYA</b>	<b>17</b>	<b>0.5</b>	<b>0.8</b>	<b>57</b>
<b>BANANA</b>	<b>17</b>	<b>0.4</b>	<b>0.4</b>	<b>7</b>
<b>GUAVA</b>	<b>10</b>	<b>0.3</b>	<b>52</b>	<b>212</b>
<b>SUGAR</b>	<b>12</b>	<b>0.6</b>	<b>--</b>	<b>--</b>

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We prepared the Jam and collected the jam in the container to distribute among ourselves.

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The study trip was very informative. We thank our principal, Ravi sir, and biochemistry in-charge, Mrs.Tahaseen, for introducing us to the central board of nutrition and its activities and enlightening us with the knowledge of preparation of Jams and Jellies. We are skilled to become entrepreneurs, to start our own industry, for which we are thankful to the Nutrition board and our college.

III B.Sc. MBC Students

DEPARTMENT OF BIOCHEMISTRY

SRR&CVR GDC, Vijayawada