

# EVALUATING THE TASTE OF FRUIT CULTIVARS

## Exercise

Evaluation of the taste of different fruits and their varieties

## Objectives

- To visit a local market to identify different fruits
- Taste evaluation of different fruits and their varieties

**Delivery Schedule:** 02 periods

**Students expectations/ learning objectives:**

- Identification of different fruits, which are being sold in the market
- Procedure of taste evaluation of fruits.

**Handout and material required:** paper sheet, pen to note down the instructions, evaluation sheet, spoon, kitchen knife, plates and fruit samples.

**Pre-learning required:** Preliminary knowledge about different fruits.

## Introduction

Taste evaluation practical is aimed to introduce students to basic taste of different fruits and their varieties. Four basic tastes such as sweet, sour, salty and bitter have been recognized. The tongue is the seat of the taste evaluation. The taste buds are on the tongue located on different places and are specific for various tastes. The sense of taste is highly useful in recognition, selection and acceptance of fruits. Depending on the concentration of the foods to be tasted, four fundamental taste qualities give variable sensation of pleasantness and unpleasantness. It has been proved that pleasantness of sucrose tasting increases as its concentration is increased. However, taste of food containing sodium chloride (common salt) increase in pleasantness only over a small range of increase in concentration, and then it gives an unpleasant sensation. In schools, taste testing can take place in the classroom or in the cafeteria.

## Tips for conducting a successful taste evaluation

- Develop goals for the taste evaluation event and make students aware of the same.
- Give students the opportunity to try a variety of fruits and their different varieties.

### For teachers...

- Arrange visit of students to local fruit market and show them different types of fruit available in different seasons.
- Bring fruit samples having different basic tastes and ask students to evaluate and fill the evaluation perform.

- Ensure the fruit sample looks appealing and that there is enough for everyone to try.
- Provide a fun and inviting atmosphere. Reiterate the importance of making good fruit choices to students.
- Get students feedback and ask them to fill the evaluation performa.

## Tastes of fruits



Children and adults enjoying the taste of different mango varieties in a mango show

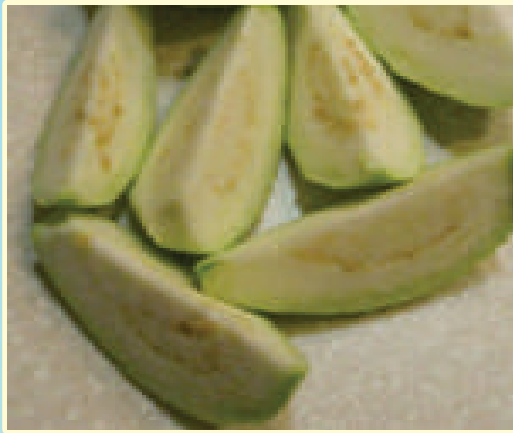
Like several other foods, fruits also contain two or sometimes three or probably all tastes. However, sweet and sour taste is the most dominant ones. For example, unripe fruits of mango, grapes, mandarins, oranges, loquat, etc. are sour in taste but when ripe, they taste sweet, yet wider variability exist among varieties. For example, some varieties of mango are very sweet (e.g., Amrapali), and some have very good blend of sugars and acids (e.g., Alphonso, Mallika). Some fruits are difficult to taste when unripe (e.g., persimmon) as they show some level of astringency but can be eaten very pleasantly when ripe. Some fruits (e.g., aonla) initially give sour (unpleasant) but later give pleasant taste, nearly sweet. Some citrus fruits (e.g., lemon and limes) taste sour whereas some (e.g., mandarins, sweet oranges, grapefruits and pummel) usually taste sweet on maturity. When such fruits are eaten unripe they taste bitter.



Apple slices



Papaya slices



Guava slices



Banana slices

### Fruits which exhibit mild sweet taste

#### Fruits and their taste

Fruit	Basic taste	Fruit	Basic taste
Mango	Sweet	Mandarin	Sweet
Grapes	Sweet	Sweet Orange	Sweet
Litchi	Very sweet	Pomegranate	Sweet
Kiwifruit	Sweet-sour	Lemon	Sour
Lime	Sour	Apple	Mildly sweet
Pear	Sweet	Plum	Sweet-sour
Peach	Mildly sweet	Apricot	Sweet
Phalsa	Mild sweet-sour	Jamun	Sweet-sour



Mango fruits



Sapota fruits



Litchi fruits



Pomegranate fruits

### Fruits which exhibit sweet taste

## Varietal differences in taste

Some varieties of a particular fruit are sweet and other are less sweet, and hence some varieties are more preferred by a selective class of people who like sweeter fruits. Thus taste of a particular variety helps in selection or rejection of variety by a particular consumer. However, in general, there is not much difference in the taste of different varieties except in sweetness.



Strawberry



Oranges



Phalsa



Loquat



Peach



Kiwifruit



Plum



Jamun

### Fruits which usually exhibit sweet-sour taste



Dried apricot



Raisin (Grapes)

### Very sweet dehydrated fruits



### Dried fruits having neither sweet nor sour taste

## Fruit Taste Evaluation Sheet

Code No. :									
Fruit Name :									
Variety Name :									
Parameters	Scores								
	1	2	3	4	5	6	7	8	9
Appearance									
Peel colour									
Pulp colour									
Firmness									
Sweetness									
Sourness									
Bitterness									
Astringency									
Grittiness									
Seediness									

Scale 1-9, 1 denotes absent or least preferred, 9 denotes present or most preferred

### Students Activities

1. Go to some fruit exhibition and identify different fruits and their varieties.
2. Participate in fruit eating competition in an exhibition and note down the differences in taste of different fruits.
3. Bring some fresh and dried fruits to the school and evaluate as per the taste evaluation sheet given above.

### Study Material

- Joshi, V.K. (2009). Sensory Science. Agrotech Publishing Academy. Udaipur, Rajasthan, India
- De-Man, J.M. (1999). Principles of food chemistry. Springer India Pvt. Ltd, New Delhi, India.