

# REJUVENATE YOUR BODY WITH FRUITS

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## **ABSTRACT**

Dehydration is a deficit of total body water. It occurs when free water loss exceeds free water intake. In the elderly, blunted response to thirst and /or inadequate ability to access free water may result in dehydration. The objective of this project is to identify the fruit which contains the maximum water content among the annual fruits, Apple, Papaya, Pomegranate and Banana. The fruits were weighed and the weights were tabulated. To obtain the content of water the fruits were dried in the oven. The weight of the dried fruits were tabulated and compared. The fruit with highest difference calculated weights is the one with the highest water content.

# INTRODUCTION



# INTRODUCTION:-

Water is the body's principal chemical component and makes up about 60 percent of our body weight. Every system in our body depends on water. Water regulates body temperatures, eliminates toxins, carries nutrients and oxygen to the cells, and provides a moist environment for body tissues and joints.

An appropriate water and electrolyte balance are critical for the function of all body systems. Water provides the medium for biochemical reactions within cell tissues and is essential for maintaining an adequate blood volume and the integrity of the cardiovascular system.

According to the Institute of Medicine, 20 percent of water intake comes from food sources. Many fruits and vegetables, such as watermelon, broccoli and tomatoes, contain 90 percent or higher water content by weight.

Annual Fruits contain 80 to 98 percent water which is one of the easiest ways to improve the hydration.

**Electrolytes:** Electrolytes are electrically charged minerals that play a role in muscle contraction and various other physiological processes. The right balance of electrolytes in the body is vital to maintaining proper body function. Electrolyte imbalances occur when the amount of water in your body fluctuates

# FORMULATION OF HYPOTHESIS:

My Hypothesis is that we can maintain our body hydrated throughout the year by consuming Annual Fruits which contains more water irrespective of season.

Among all these Annual fruits (Apple, Banana, Pomegranate, Papayya) Apple may contain more water.

1. Do Annual Fruits helps in hydrating the body?
2. How can be electrolytes regained?

# Recent Studies



Many recent studies about the water content on fruits have been held. The fruits provide healthy life style to our bodies in all the way right from providing the minerals and water content as well.

## EXPERIMENTATION:

### MATERIALS:

S.No	Annual Fruits
1	Apple
2	Banana
3	Pomegranate
4	Papaya
5	Digital weighing Machine
6	Micro-wave





**THE  
SCIENTIFIC  
METHOD**

## OBSERVATIONS:

1. Take the annual fruits (Apple, Banana, Papaya, Pomegranate) and weigh them using digital weighing machine and note the values as  $W_1$ .

Banana  $W_1=0.115\text{gms}$

Apple  $W_1=0.82\text{gms}$

Papaya  $W_1=0.531\text{gms}$

Pomegranate  $W_1=0.84\text{gms}$

Table-1

S.No.	Fruit name	Weight of wet sample [ $W_1$ ] in gms
1.	Banana	0.115 gms
2.	Apple	0.82 gms
3.	Papaya	0.531 gms
4.	Pomegranate	0.84 ms

1. Now keep each fruit in microwave oven for 10 minutes at medium temperature to remove the water content from the fruit and note the value as weight  $W_2$ .

• Banana  $W_2=0.105\text{ gms}$

• Apple  $W_2=0.140\text{gms}$

• Papaya  $W_2=0.158\text{gms}$

• Pomegranate  $W_2=0.185\text{gms}$

Table-2

S.No.	Fruit name	Weight of wet sample[W <sub>2</sub> ]in gms
1.	Banana	0.105 gms
2.	Apple	0.140gms
3.	Papaya	0.158 gms
4.	Pomegranate	0.185gms



# RESULT AND DISCUSSION

## Formula

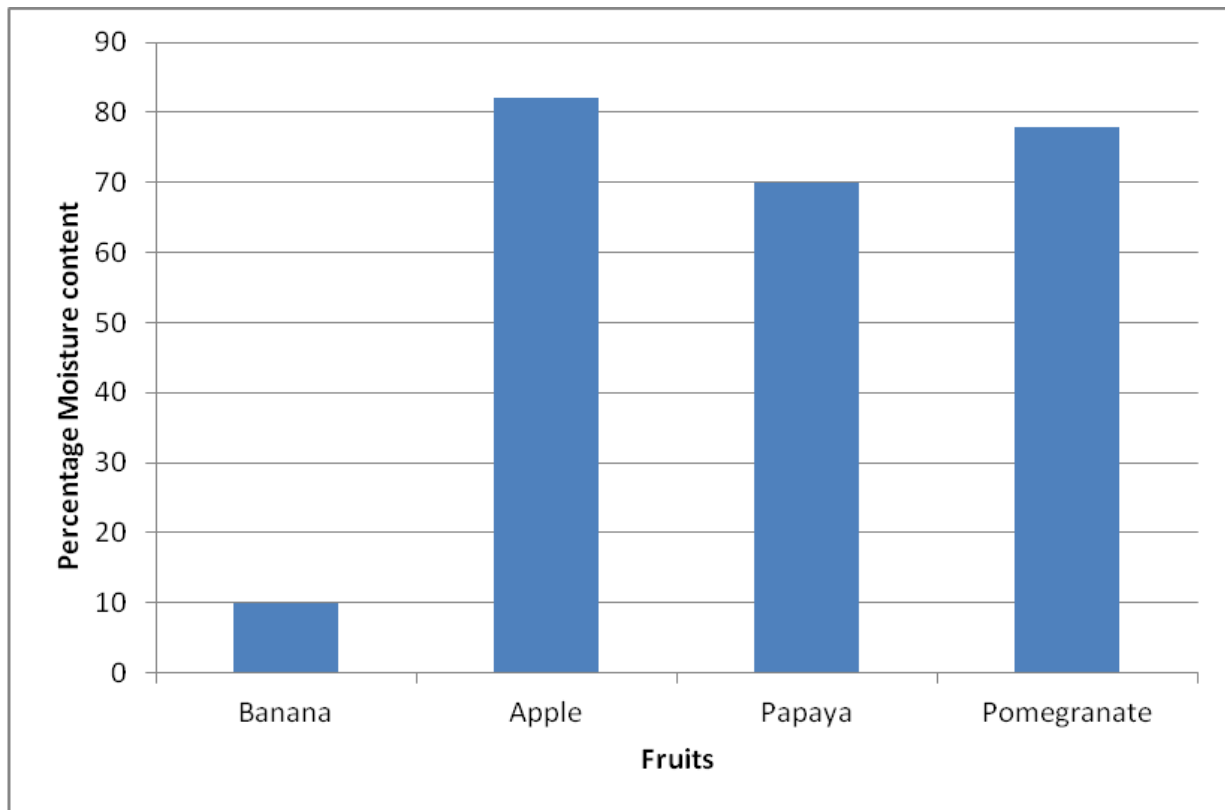
To know water content in fruits

$$\text{Moisture content} = \frac{\text{Initial weight (W}_1) - \text{Final weight (W}_2)}{\text{Initial weight (w}_1)} \times 100$$

W<sub>1</sub> = Weight of wet sample.

W<sub>2</sub> = Weight of dry sample.

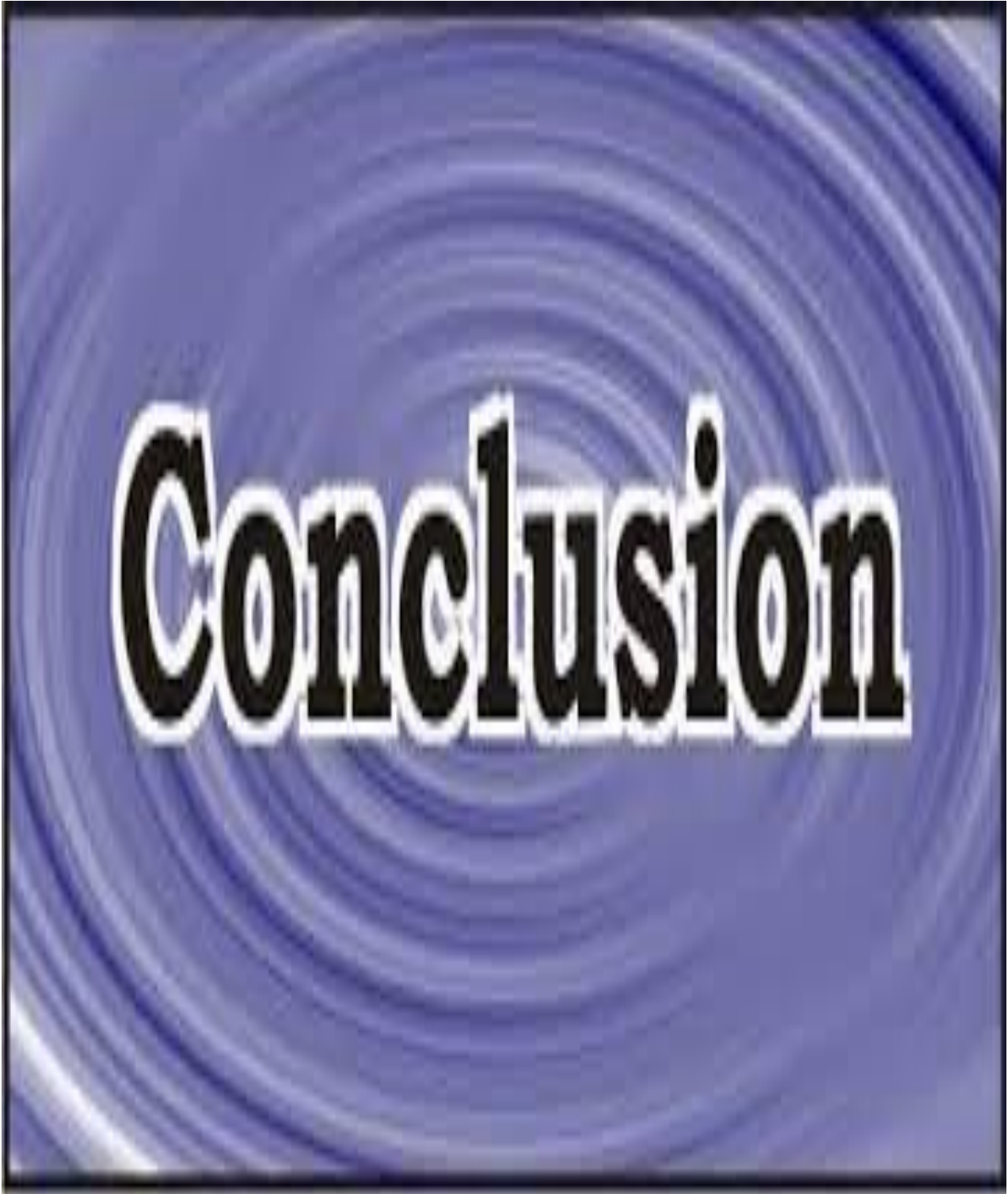
S.No	Fruits Name	Wt of wet sample (W <sub>1</sub> ) gms	Wt. of wet sample (W <sub>2</sub> ) gms	MC = $\frac{W_1 - W_2}{W_1} \times 100$
1.	Banana	0.120	0.110	10
2.	Apple	0.82	0.140	82
3.	Papaya	0.531	0.158	70
4	Pomegranate	0.84	0.185	78



## RESULT:

Apple has more water content and compared with other Annual Fruits.

(Banana, Pomegranete, Papaya)



## CONCLUSION:

I conclude that though some fruits are not available throughout the year we can hydrate our body by consuming Annual Fruits with more water content i.e., Apple.

## APPLICATION:

1. Easily Available throughout the year
2. Common type of annual fruit
3. hydrates the body.

## ABBREVIATIONS

Moisture content

Global warming

Dehydration

Annual Fruits

Digital Weighing machine

Microwave



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