

GOVERNMENT DEGREE
COLLEGE FOR WOMEN'S - GAIWEL
DEPARTMENT OF BOTANY

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Group : B.Sc (BZC) IInd year

HT. NO : 602921445030

Student Study Project - Fruit

Academic Year : 2022-23

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DEPARTMENT OF BOTANY
Government Degree College W
GAIWEL, Siddipet Dist

A study on Fruit.

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The research presents the fruit morphology. Type of fruits, its dispersion. Also the modification of fruit. Understanding how a fruit is produced, Better understanding of fruit.

Keywords: Fruit, Accessory organ, Pollination, seed dispersal, Drupe, pulp.

Introduction:

Fruit, the fleshy or dry ripened ovary of a flowering plant, enclosing the seed or seeds. Thus, apricots, bananas, and grapes, as well as bean pods, corn grains, tomatoes, cucumbers, and (in their shells) acorns and almonds, are all technically fruits. Popularly, however, the term is restricted to the ripened ovaries that are sweet and either succulent or pulpy. For treatment of



the cultivation of fruits, see fruit farming. For treatment of the nutrient composition and processing of fruits, see fruit processing.

Botanically, a fruit is a mature ovary and its associated parts. It usually contains seeds, which have developed from the enclosed ovule after fertilization, although development without fertilization, called parthenocarpy, is known, for example, in bananas. Fertilization induces various changes in a flower: the anthers and stigma wither, the petals drop off, and the sepals may be shed or undergo modifications; the ovary enlarges, and the ovules develop into seeds, each containing an embryo plant. The principal purpose of the fruit is the protection and dissemination of the seed.

Pericarp

The pericarp is the part of a fruit formed from the wall of the ripened ovary. It surrounds the seeds. It is tough in nature because the parent plant needs to protect the plant growing. It has



three layers: Epicarp, Mesocarp, and Endocarp.

True fruit

A fruit that develops from only the ovary part of the flower is known as true fruit. In these fruits, the ovary wall is changed into a fruit wall or pericarp which surrounds the seeds. The



other floral parts degenerate and fall off. True fruit contains one or more visible seeds. For example, mango, banana, tomato, etc.

Classification of Fruits:

Pomes:-

A pome is a type of fruit that has a fleshy area surrounding a core containing seeds. Some examples of fruits that are pomes are apples and pears.

Citrus fruit:-

Hesperidia (citrus fruits) are types of fruits that have a thick tangy rind and sectioned pulp inside, such as lemons, oranges and limes.

Some examples of fruits that we usually refer to as vegetables include pumpkins, tomatoes, cucumbers, corn, and peppers. Botanically, tomatoes for example, are classified as berries. Pumpkins, on the other hand, are classified as a pepo fruit.

Pepo:-

Pepo is a type of fruit that has multiple seeds throughout the flesh or grouped together in the center. Melons are among some of the largest kinds of pepo fruits. The pepo fruit category includes various sizes of fruits from large watermelons to tiny cucamelons.

Tropical fruit:-

Tropical fruits are defined as fruits that are grown in hot and humid regions within the Tropic of Cancer and Tropic of Capricorn, covering most of the tropical and subtropical areas of Asia,



Africa, Central America, South America, the Caribbean and Oceania.

Drupe:-

A drupe is a type of fruit that has a single seed in the center surrounded by a hard layer like a shell.

Drupe are generally sweet, juicy fruits that are rich sources of vitamins and minerals as well as fiber.

Sweet fruits that are in the list of drupes are divided into 2 different types of stone fruit:

Clingstone. The stone in this type of drupe usually clings to the fruit flesh and is difficult to remove. Some types of peaches, plums, and cherries are clingstone fruits.

Freestone. As the name suggests, freestone drupes have a stone which comes out easily and doesn't have to be cut free. Many varieties of plums and peaches come in both freestone and clingstone.

There are two broad categories of fruits: fleshy fruits, in which the pericarp and accessory parts develop into succulent tissues, as in eggplants, oranges, and strawberries; and dry fruits, in which the entire pericarp becomes dry at maturity. Fleshy fruits include (1) the berries, such as tomatoes, blueberries, and cherries, in which the entire pericarp and the accessory parts are succulent tissue

(2) aggregate fruits, such as blackberries and strawberries, which form from a single flower with many pistils, each of which develops into fruitlets, and (3) multiple fruits, such as pineapples and mulberries, which develop from the mature ovaries of an entire inflorescence. Dry fruits include the legumes, cereal grains, capsulate fruits, and nuts.

Seed dispersal

The conditions in which to germinate and grow.

Some fruit have built-in mechanisms so they can disperse by themselves, whereas others require the help of agents like wind, water, and animals (Figure 1). Modifications in seed structure, composition, and size help in dispersal. Wind-dispersed fruit are lightweight and may



have wing-like appendages that allow them to be carried by the wind. Some have a parachute-like structure to keep them afloat. Some fruits—for example, the dandelion—have hairy, weightless structures that are suited to dispersal by wind.

Type of seeds dispersal

Seed Dispersal by Wind

The wind is the natural and fundamental means of seed dispersal in the plant kingdom. This process of dispersal is mainly seen in those plants which bear very light seeds. The seeds of the orchid plant, dandelions, swan plants, cottonwood tree, hornbeam, ash, cattail, puya, willow herb, are all examples of plants whose seed are dispersed by the wind.

Seed Dispersal by Water

In this method of seed dispersal, seeds float away from their parent plant. These are mainly seen in those plant which lives in water or nearby the water bodies like beaches, lakes, ponds etc. Coconut, palm, mangroves, water lily, water mint, are a few examples of plants whose seed are dispersed by the water.

Seed Dispersal by Animal and Birds

There are different ways in which animals and birds disperse the seeds.

Few animals and birds are attracted to bright colourful fruits. They eat the entire fruit and only the juicy part is digested by their system and the seed are excreted out in the form of their dropping, which forms into new plants. Blackberry, cherry, tomato and apple seeds are dispersed in this way.

Seed Dispersal by Explosions

Explosions in fruits literally refer to bursting with all its energy. In this case, as the fruits get ripened, it shoots out its seeds into the external environment. This type of seed dispersal is mainly seen in those plants having pods.

Seed Dispersal by Gravity

Gravity is a force of attraction that exists among all the objects in the universe.

As the fruits from the tree fall on the ground due to the force of attraction, they sometimes roll down to some smaller distance, get buried in the soil after a few days and germinate into a new plant.



Importance of Fruits:

Fruits and vegetables are a great source of vitamins and minerals. ...

You get to enjoy a variety of flavors and textures. ...

Lots and lots of fiber. ...

They're low-calorie and low-fat. ...

Protect against cancer and other diseases. ...

Fruits and vegetables help you maintain good health.

Objective:-

To learn about the anatomy and morphology of fruit.

To analyze the structures and processes involved in the fruiting plants.

To examine the process of pollination and explore the reasons for such diverse shapes, sizes, colors, etc. of fruits.

Methodology:-

Collection of data:-

The data were collected for the present investigation through literature survey on various books of plants and their uses and through valued research papers published on ethnobotanical uses of plants. Bisht et al., 2013; Shyma and Devi, 2012; Taur and Patil, 2011; Sharama et al., 2010; Panda, 2010; Jitu, 2011; Reddy, 2008; Rajkumar and Shivanna, 2010; Singh et al., 2012; Patil and Patil, 2005; Singh, 2008; Silja et al., 2008; Bapuji and Ratnam, 2009; Neumi, 2010; Sharma et al., 2010; Bussmann and Glenn, 2011; Benniamin, 2011; Shanavaskhan, 2012; Shanmugam et al., 2012). In this survey, number of medicinal plants were explored which are very much useful for the treatment of asthma. Plant names have been arranged alphabetically and for correct nomenclature, Bennet (1986) guideline has been followed. Screening of collected data was carried with reference to the book entitled 'Dictionary of Indian Folk Medicine and Ethnobotany' by Jain (1991). The data were compiled with reference to the plant part used for the treatment of asthma, its administration and distribution of these plants in various parts of India.

Result and discussion:

- Fruits are excess food stored by plants.
- There are wide variety of fruits present.
- Fruits are rich in nutrients, proteins, vitamins and water.
- A diet rich in vegetables and fruits can lower blood pressure
- Reduce the risk of heart disease and stroke, prevent some types of cancer, lower risk of eye and digestive problems.
- It have a positive effect upon blood sugar, which can help keep appetite in check.

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GOVERNMENT DEGREE
COLLEGE FOR WOMEN'S.

DEPARTMENT OF BOTANY.

NAME + Kusum Priya Shaw

Group + BSC (BZC) II year.

H.T.No. + 602921445042.

Student Study Project
Flower.

Academic Year: 2022-23

Kusum

DEPARTMENT OF BOTANY
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Girls, Sankaripada

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1.	6029-20-405-104	T. Rekha
	6029-20-405-097	S. Usharani
	6029-20-405-050	K. pooja
	6029-20-405-074	M. Anoosha
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	-054	K. Divya Sri
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TITLE OF THE PROJECT	Supervisor
"Customer Satisfaction At ICICI Bank"	V. Sarojana MS
"ONLINE MARKETING"	V. Sarojana MS
"A Study on Work Life Balance of Hotelier Drags At Heliro Drags Company"	
Customer Relationship Management at Toyota Motor Ltd.	V. Sarojana MS
A Study on Effectiveness on training and Development in Bharat Sanchar nigam Limited	
Customer Satisfaction on Reliance Ito	V. Sarojana MS

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	-048	G. Chithra
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	-107	T. Yashwanthi
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2.	6029-20-405-043	B. pooja
	6029-20-405-080	P. Study
	6029-20-405-026	CH. Nandini
	6029-20-405-109	V. Archana

prospectives and Loses of cloths Stores After Corona IN Gajwel.

'HDFC Limited' Assets & Liability Management.

Comparative study of Effectiveness By promotional schemes Zudio And pantaloons

Lean Inventory Management.

Customer relationship management at toyota motor Ltd.

A study on Awareness of employability skills in undergraduates

V. Sarojana
MS

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V. Sarojana
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Shysha Jabeer,
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MO. Reshma Begum
G. Prashanti

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S. Pavalika
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A. Anusha
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D. Shravani
K. Nithisha
M. Syamala
D. Kalyani

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P. Sarpiga
N. Nambheetha
D. Nikhitha
N. Swetha

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B. Meenakshi
Ch. Shailaja
M. Soundarya
Ch. Srilatha

In search of livelihood why the
people are reluctant in
Establishing start-ups - A study

Customers Satisfaction HDFC
Bank Regarded Services.

V. Sarojana
MA2

Recruitment and selection
at BFL Bazaar.

Consumer Behaviour
on E-shopping.

V. Sarojana
MA2

Customers Satisfaction on
Airtel sim

Assets And Liability
Management Commercial
Assets

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B. Ramya
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R. Anusha
R. Nazamani
M. Kavitha

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B. Krishnaveni
S. Anasa
M. Pechamma
R. Ramadevi
D. Akhila

HOD

Consumer Perception towards
swiggy and zamato after
corona in siddipet district

V. Sarojana
MA2

A Study ON WOMEN
ENTREPRENEURS.

V. U. Uma Devi
Principle

ASSESSMENT ON MINERAL WATER PLANTS IN GAJWEL

GOVERNMENT DEGREE COLLEGE(W) GAJWEL

JIGNASA STUDENT STUDY PROJECT

IN

CHEMISTRY

Under the Guidance of

Dr. J. UMA RANI

Assistant Professor of Chemistry



- | | |
|-----------------|-------------|
| 1. FARIYA | MZC V SEM |
| 2. K. SANDHYA | BTZC V SEM |
| 3. R. PRIYANKA | MZC VSEM |
| 4. V. NAGALAXMI | MPC VSEM |
| 5. RAMSHA | MPC V SEM |
| 6. LEKHA | MZC III SEM |

DEPARTMENT OF CHEMISTRY

GOVERNMENT DEGREE COLLEGE (W) GAJWEL

TELANGANA-502103



DEPARTMENT OF MATHEMATICS
GOVERNMENT DEGREE COLLEGE FOR WOMEN - GAJWEL
STUDENTS' STUDY PROJECT




Topic: Classification of Groups of Order Up to 8

Academic Year: 2022-2023

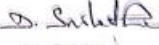
Undertaken by: B. Sc. - II Year Students

S.No	Name of the Student	Group	Hall ticket No
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2.	A. Sathwika	BSc [MPCS]	602921468001
3.	N. Sankethana	BSC [MPCS]	602921468064
4.	J. Deepika	BSC [MPCS]	602921468039
5.	E. Shiresha	BSC [MPCS]	602921468028
6.	D. Navya	BSC [MPCS]	602921468026
7.	B. Pavani	BSC [MPCS]	602921468017
8.	P. Mythri	BSC [MPCS]	602921468071
9.	J. Manisha	BSC [MPCS]	602921468040
10.	R. Namitha	BSC [MPCS]	602921468074
11.	S. Rakshitha	BSC [MPCS]	602921468081

Under the supervision of


DR. K. SAROJA

(Assistant professor of Mathematics)
HOD


D. Sathula

(Asst. Professor
of Mathematics)





Department of Political Science
GDCW, Gajwel

Field Trip to T-Hub, Hyderabad.
27-04-2023



Before leaving to T-Hub,



At T-Hub, Hyderabad

Department of Political Science
GDCW, Gajwel

Field Trip to T-Hub, Hyderabad.
27-04-2023

The Department of Political Science as a part of Telangana Academy of Skills and Knowledge (TASK) visit, the students visited Hyderabad to understand various state government initiatives to encourage the young entrepreneurs. Students visited T-Hub and interacted with ~~students~~ upcoming young entrepreneurs and the various government initiatives and available infrastructure and facilities for the unemployed youth.

The following students attended the workshop at T-Hub.