



**TELANGANA TRIBAL WELFARE RESIDENTIAL
DEGREE COLLEGE (GIRLS), KOTHAGUDEM**

Bhadradi Kothagudem District, Telangana State –507101

(Affiliated to Kakatiya University, Warangal, Telangana)



Website: <https://ttwrdds.ac.in/.Kothagudem>

Department of Botany

QR Codes For Plants

Date : 22-08-2022

QR Codes are like Barcodes that you see with your phone to get access to more information on something .

At joy of plants we have created a QR code for every plant in our data base-each QRcode give access to a “plant info” webpage of complete details for that plants.

A QR code is a great tool to encode information that can be easily access with a smart phone .

From the Department of Botany we have planned to give QR codes for plants which are located in our campus . For that we selected some plants in our campus and give QR codes to that plants .

This best practice is very informative like common names, scientific names, classification, medicinal uses, traditional uses etc.

The following Plants We given codes

- 1.Prunus dulicis.
2. Ocimum tenuiflorum.

3. Aloe vera.
4. Aegle marmelos.
5. Psidium guajava.
6. Azadirachta indica.
7. Pongamia pinnata.
8. Calotropis gigantia.
9. Mangifera indica.
10. Bergera koenigii.











TTWRDC (G) KOTHAGUDEM

ACADEMIC YEAR 2022-2023

DEPARTMENT OF BOTANY

SMART WATERING TECHNIQUE USING PVC PIPES FOR EFFICIENT PLANT CARE





AIMS AND OBJECTIVES:

Deep watering pipes

- These pipes are long lasting, act as conduits for water to Penetrate deeply, reduce evaporation, allow for soil additives, keep water off leaves, and make watering easier, with consistence and measurable volume.

- 100mm PVC pipes.
- Meter long lengths.
- 30cm drilled with 1cm holes.
- Bury to above holes.
- Fill in side with soil above.
- Level of whole sand ground.



INTRODUCTION:

Deep Pipe Irrigation is not new, but is probably underutilized. A number of years ago ECHO published an article describing a method of irrigation that makes use of many of the same principles employed by Deep Pipe Irrigation. In an article titled “Partially Buried Flower Pots or Tin Cans Save on Watering” the following method of irrigation was described. A flower pot (15 cm diameter/6 inches) is partially buried about 7.5 cm (3 inches) deep just outside the root ball of transplanted trees, or surrounded by vegetable plants. To water the plants, pots are filled twice with water and the water is allowed to drain into the soil near the roots. Advantages of the method include efficient delivery of water to the root zone, and less weed seed germination since surface soil remains dry.



Procedure:

The deep pipe method is similar. A pipe 30-50 cm (12-20 inches) long and 2.5-5 cm (1-2 inches) in diameters drilled with a series of holes, 1-2mm in diameter and 5-7.5cm (2-3inches) apart down

One side of the pipe. The pipe is then buried either vertically or on a slight angle (with the holes facing down), about 2.5-7.5cm(1-3inches)from a young seedling. If watering a tree, several pipes can be used around

the tree to encourage symmetrical root growth. A screen cover can be added to the open end of the pipe to keep small animals out.





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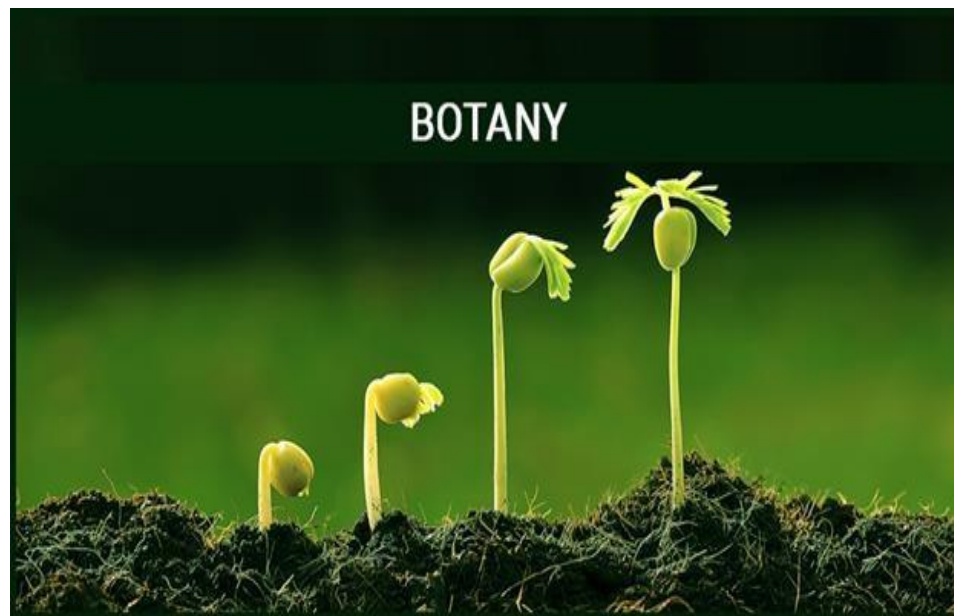
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Department of Botany



ENTREPRENEURSHIP ACTIVITY

OLERICULTURE

DEPARTMENT OF BOTANY

Supervised By

Kum.B.Kaveri (Lecturer in Botany)

Kum.K.Swethe (Lecturer in Botany)

Incubation cell

The science of vegetable growing , dealing with the culture of herbaceous (non-woody) plants for food . It concerns the production of plants for use of the edible parts .

Department of Botany as a part of curricular and co-curricular activities we are planned to grow vegetables like Tomato,Brinjal, Chilli, Ladyfinger,Amaranth , Coriander,etc. which is in our hostel ground.

III BZC students are involved in making of Beds with soil. We are taken soil near by field and the organic fertilizer which is collected from our college that organic fertilizers(Vermicompost) prepared by Department of zoology in our campus. This Vermicompost is used in beds preparation why because this is harmless fertilizers. After completion of bed preparation students take above mentioned seeds and sowing the seeds in the beds.

Nursery Bed Preparation : 1 Sunken bed

- This type of nursery bed is prepared in dry and windy areas .
- In dry areas, the bed is kept 10-15 cm below the ground level, which helps n conserving water .
- Sunken bed facilitates the deposition of irrigation water or rain water for a long time .
- A sunken bed provides protection to seedlings during high wind conditions as they are covered . so it also preferable in winter season in high wind area .

2.Raised bed

- Such a nursery bed is prepared during the rainy season.
- This type of bed is prepared about 15 cm high from the ground level. The width is kept at 1-1.5 meters and length 3-5 meters .this enables adequate drainage during rains and checks water stagnation



Palwancha, Telangana, India
HPR2+CFC, Palwancha, Telangana 507115, India
Lat 17.59077°
Long 80.700947°

GPS Map Camera

Bed preparation



Palwancha, Telangana, India
no 22-2, 22-02-126, Nehru St, Palwancha, Telangana 507115, India
Lat 17.59152°
Long 80.699996°
24/06/24 06:01 PM GMT +05:30

GPS Map Camera

Google

Sowing seeds



Growth of seeds



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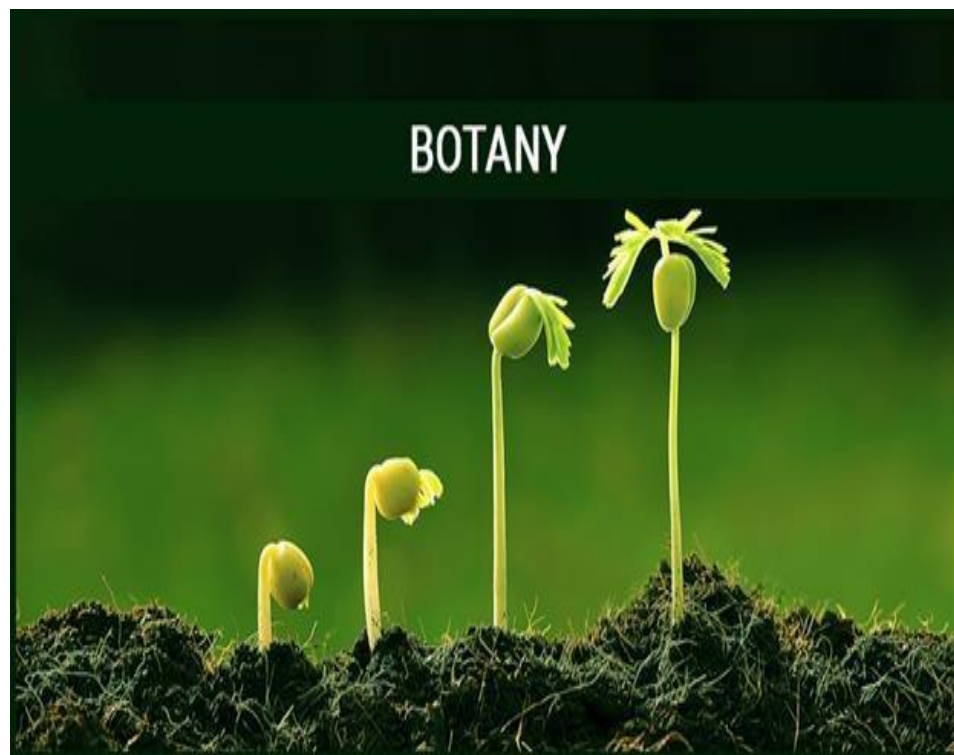
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Department of Botany



Supervised By

Kum.B.Kaveri (Lecturer in botany)

Kum.K.swetha (Lecturer in botany)

Banana Crop Cultivation

We Department of Botany has planned a Banana crop cultivation at tribal welfare residential college paloncha. In our campus we planted around 50 banana plants.

Field name: Banana crop.

Scientific name: *Musa acuminata*.

Location: Tribal welfare residential degree college paloncha.

Date of planting: 01/07/2024.

Objectives

The main objective of banana cultivation is to cultivate primarily for food and secondarily for the production of fiber and also cultivated for ornamental purposes like Eco-friendly plates. To ensure the economic sustainability of products.

Report

Encourage students groups to manage and maintain banana plants, promoting leadership and team work. The nutrients including NPK, Mg, and Ca. The medicinal use of banana plant parts is used to treat digestive problems like diarrhea, constipation, and ulcer due to its high fiber and potassium content. It also helps to lower blood pressure, reducing risk of heart disease and stroke.

Conclusion

Banana crop cultivation requires careful consideration of various factors, including soil, climate, propagation, nutrient management, pests and disease management, and post harvest handling. By adopting sustainable practices and innovative technologies, banana production can be optimized, ensuring food security and sustainable livelihoods for smallholder farmers and communities.

Incorporate banana cultivation into courses like Horticulture, Botany, or Sustainability, providing practical learning experiences.



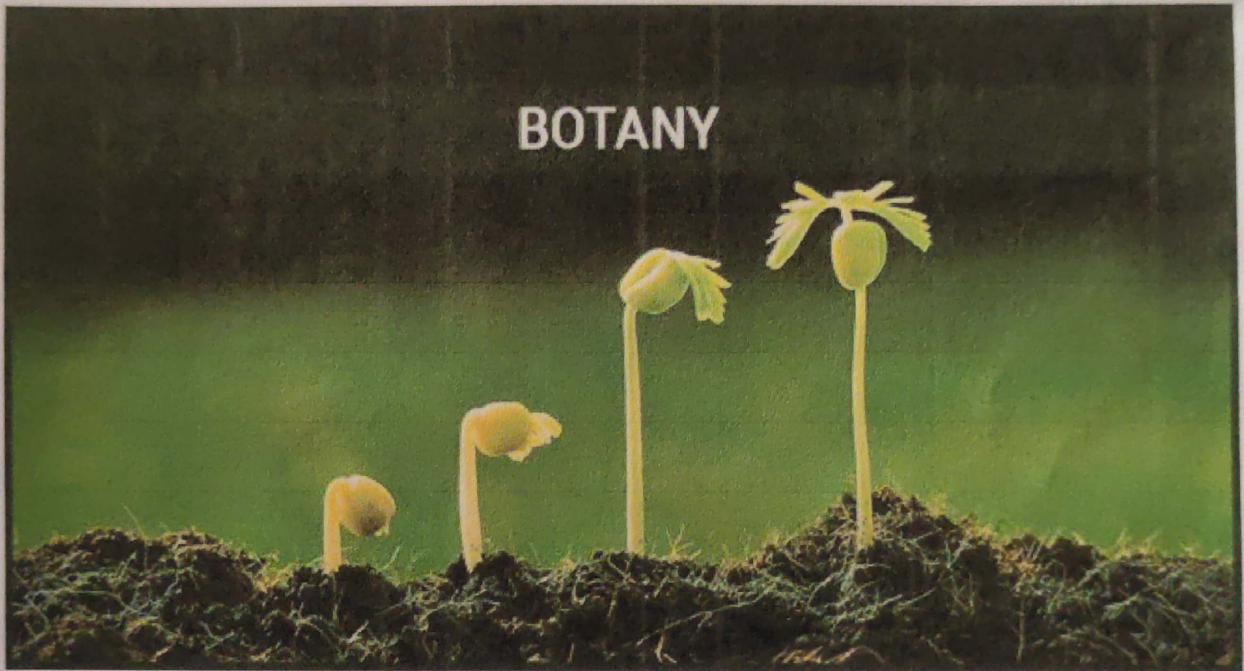




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Accredited with NAAC "B⁺" Grade



Department of Botany



Innovative \ Best practice

Azolla cultivation

Supervised By

Smt. Ch. sumalatha

Kum. B. Kaveri



Azolla cultivation

We Department of Botany has planned a best practice is Azolla cultivation at Tribal welfare residential college Paloncha.

Field name : Azolla cultivation

Scientific name: Azolla pinnata

Lpcation: Tribal welfare residential degree college paloncha

Date of collection : 14\02\25

Date to start cultivation: 15\02\2025

Objectives :

The main objective of azolla cultivation is to understand the azolla biology and to educate students about its importance in ecology . it is a natural biofertilizer and rich in nitrogen, phosphorus and potassium, reducing the need for chemical fertilizers. Provide an additional source like improving crop yield , soil health, pest and disease control measures .

Report :

We have to collected azolla near by pond of Rathi cheruvu with the help of pond keeper.

Selected a particular location in our college with partial shade , Collected fresh water with a P^H 5.5 to 7.5. we selected the waste bouquets of students and fill the bouquets with water and maintain water quality and control pest and diseases.

Instead of tank we have to cultivated in waste and leakage bouquets of students We placed collected azolla into bouquets and cultivated in that bouquets students of III BZC maintaining that pond .

Importance of Azolla cultivation

It have many benefits like

1. Environmental benefits is to use as a biofertilizer , water conservation and carbonsequen stration
2. Agricultural benefits is crop yield improvement ,soil health improvement and pest control
3. Economic benefits is income generation through farmers and rural communities ,job creation .



Collection of Azolla

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