

QR Codes maintained for the plants in the College Campus

REPORT ON THE GENERATION OF QR CODES FOR PLANTS IN THE COLLEGE CAMPUS

A quick response (QR) code is a type of barcode that can be read easily by a digital device and which stores information as a series of pixels in a square-shaped grid. QR codes are frequently used to track information about products in a supply chain and often used in marketing and advertising campaigns. Now it is used in various fields.

One of the applications includes the Generation of QR Codes for plants which provide the information regarding the Plants.

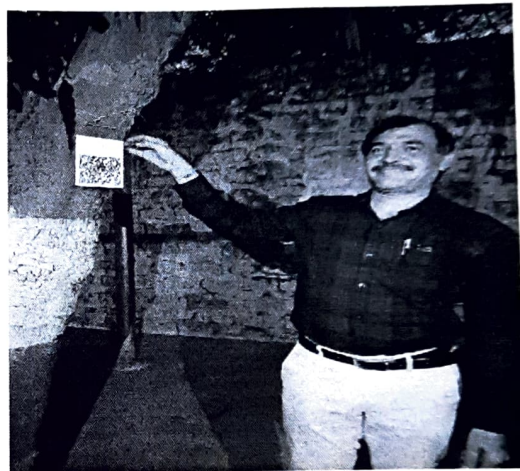
Department of Botany, Government Degree College for Women(A), Begumpet (is the first Government college in Hyderabad District) has taken initiative to generate the QR Codes for Plants present in the College Campus.

QR code of a particular plant provides the information such as Botanical Name, Common name, Family to which it belongs to and the economic importance (Uses) of that plant.

Dr. Rajendra Singh, JD (in-charge), Dr. Soundarya Joseph, Project Officer, RUSA and Dr.T.V. Chary, Academic Officer from Academic Cell visited the Botany Department on 30-03-2021 and inaugurated QR coding of trees in the campus.

In view of Autonomy Extension on 8th and 9th of April, a External Peer Team from Comissionarate of Collegiate Education comprising of Dr. Rajendra Singh, JD (in-charge), Dr. Soundarya Joseph, Project Officer, RUSA and Dr. T.V. Chary, Academic Officer from Academic Cell came to oversee the preparations being done in the College.

On this occasion, they visited the Botany Department, inaugurated and appreciated the practice of QR coding of trees in the campus.



Vermicompost

Compost is commonly prepared by decomposing plant and food waste and recycling organic materials. Vermicomposting is the scientific method of making compost by using earthworms. Earthworms feed on the organic waste materials and give out excreta in the form of vermicasts that are rich in nitrates and minerals such as Phosphorus, magnesium, calcium and Potassium. These are used as fertilizers and enhance soil quality and add nutrients to the soil.

Importance

- Vermicompost **helps to improve soil structure, texture, porosity, water holding capacity, drainage, aeration and reduce erosion.**
- It improves plant growth by enabling the growth of new shoots and leaves, thereby increasing productivity.
- It helps to neutralize the pH of the soil.

Procedure

- Preparation of a compost pit of required measurements-6 feet length, 6 feet wide, 6 feet depth.
- The pit is filled with dried leaves, twigs collected from college campus.
- Cow dung slurry is prepared and sprinkled on the heap of dried leaves and twigs for quick decomposition.
- 2-3 inches soil layer is added above it.
- Fine bedding is prepared by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from the college canteen. It is distributed evenly on the soil layer.
- Both bio wastes and cow dung are added continuously up to a depth
- The earthworm species are released over the mixture.
- Water is sprinkled on a regular basis to maintain the moisture content of the compost
- A frequent check is done to avoid the compost from overheating. Proper moisture and temperature are maintained.

Advantages of Vermicomposting:

- Develops roots of the plants
- Improves the Physical structure of the soil
- Vermicomposting increases the fertility and water-resistance of the soil.
- Helps in germination, plant growth and crop yield
- Nurtures soil with plant growth hormones such as auxins, gibberellic acid etc.



Government Degree College for Women, Begumpet

Department of Botany

Seed Collection

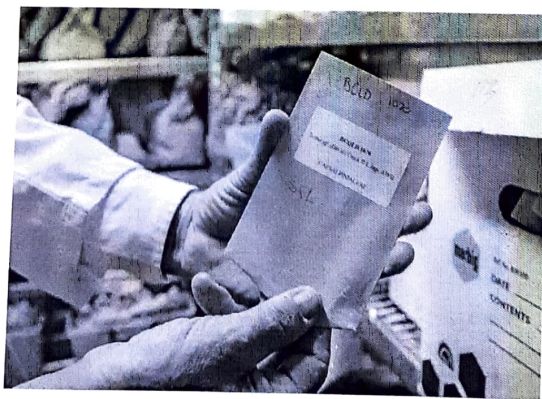
Seed collection is about capturing the best genetic quality the seed source can produce, at the optimal time for high physiological quality. Seed processing is about maintaining the physiological quality of these genetically best quality seeds through adapted processing, handling, and storage technology.

Seeds need moisture, warmth and light to germinate, so give them the exact opposite, a dry, cool, dark environment, when storing them. Place your seeds in an envelope or paper bag and seal them in plastic containers or glass jars. If you are not convinced that your seeds are dry, eliminate the airtight container step.

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Selecting disease-free seeds is important for preventing seed borne diseases. Healthy and viable seeds produce healthy plants. The seeds from the appropriate breed are selected for growing high yielding, disease resistant crops.

Seeds are kept out of direct sunlight in a cool spot that maintains a fairly consistent temperature. Consider a cold closet, a basement, or a room on the north side of your home that remains cool year round. Freezing isn't necessary for short-term storage, but you can refrigerate seeds, provided they are sufficiently dry.



**Government Degree College for Women, Begumpet
Department of Botany
Medicinal/ Herbal Garden**

			
<p>Common Name: Machipatri Botanical Name: <i>Artemisia indica</i> L. Family: Asteraceae Uses: Diarrhoea, constipation</p>	<p>Common Name: Sabja Botanical Name: <i>Ocimum basilicum</i> L. Family: Lamiaceae Uses: treatment of headaches, coughs,</p>	<p>Common Name: NallaUmmetta Botanical Name: <i>Datura fastuosa</i> L. Family: Solanaceae Uses: Antimicrobial insecticidal,</p>	<p>Common Name: Lavender ✓ Botanical Name: <i>Lavandula spical</i> L. Family: Lamiaceae Uses: Antidepressive, anxiolytic, sedative,</p>
			
<p>Common Name: Ranapala Botanical Name: <i>Kalanchoelanceolata</i> (Forssk.) Pers. ✓ Family: Crassulaceae Uses: Headaches and neck pains</p>	<p>Common Name: Coleus Botanical Name: <i>Coleus amboinicus</i> Lour. Family: Lamiaceae Uses: Treat allergies,</p>	<p>Common Name: Pulichinta Botanical Name: <i>Oxalis corniculata</i> Family: Oxalidaceae Uses: Rich in Vit C</p>	<p>Common Name: Vasa ✓ Botanical Name: <i>Acorus calamus</i> L. Family: Acoraceae Uses: Gastro intestinal diseases</p>

GOVERNMENT DEGREE COLLEGE FOR WOMEN, BEGUMPET

Department of Botany

Report on the use of the prepared Vermicompost on plants of our College campus

Vermicompost prepared by the students in the college is used in gardening for healthy and fast growth of plants as a best and eco friendly practice. All the I year BZC and RBZ students were involved in using the prepared Vermicompost to all the plants present in the Ornamental and Medicinal garden. The programme was organized by the department of Botany and Eco club on 28.05.2022. All the staff members and the Principal Dr K. Padmavathi participated in the programme.







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