

## **Best practice adopted by Department of Botany during the academic year -2021-2022**

### **Title of the practice :Vermicomposting unit**

Context: as a part of tradition of implementing best practices every year , in 2021-2022 we did renovation in vermicompost pit.

**Objectives :**The campus is very much potential in providing the biomass which seems to be a best raw material for the production of vermicompost.

**Implementation :** with the experience of organizing a workshop on organic farming a new practice was adopted in the form of vermicomposting.In this program 50 students were participated , they maintained vermin compost unit .On a regular basis the student volunteers collect the suitable biomass and place it in the unit in a proper way.They are supposed to monitor moisture content as well as the presence of the earthworms .





## Best Practice adopted by the Department of Botany

2020-21  
Generation of QR code to the documented plants  
of the College Campus (24/04/2021)

Context : The Department has adopted to identify plants documented plant species present in the College Campus by generating QR Codes are barcodes that can be read by mobile phone (smartphone) cameras. A QR code is Unique to a webpage. All plant pages have their own Unique Code. Anyone with a smart phone can use a QR code scanning app to scan the code and see the Scientific name, family & Medicinal Uses of the plant.

Objectives :  
To display the plant information to Quick Response Code  
To visualize plant information through Quick Response Code.  
To know Scientific and common name, family & Medicinal Uses of the plants.

Implementation : Department of Botany have identified some students of B.Sc life sciences and assigned to do study project on "A Study and Documentation of Flora Existing in the Campus of Govt. Degree College Khairatabad and documentation to the existing flora with the help of Dr. J. Swamy Scientist B from BSI (Botanical Survey of India) Deccan regional centre in the year 2017-18 on 9/11/2017 and submitted project on 24/11/2017 QR codes are generated for those plants

Observation : Our college principal Dr. DSR Rajender Singh says that people are often curious to know about a plant that is in front of them but may not know what to look for. even if they were to do a Google search. Dept. of Botany GDC Khairatabad proposed tagging trees in the college campus with QR codes.



We see QR codes on product packaging which is used to find out more about the product.

QR codes are generated and displayed on plants. Anyone with a smartphone can download a QR code scanning app. Scan the code and see the scientific name and common name, family, medicinal uses of the plants.

Principal of our college Dr. D.S.R. Rajender Singh and Head of the Department B. Sofia Rani and faculty of Botany & Microbiology Dr. P. Vijaya, Dr. K. Sarojini Chakravathy, P. Archana may involved in QR code tagging to plants. Other faculty members of GDCK also involved and participated in this programme.

B. Sofia Rani

### Generation of QR codes – list of plants

1. <i>Alstonia scholaris</i> (L.)	-	<i>Apocynaceae</i>	
2. <i>Azadirachta indica</i> A. Juss	-	<i>Meliaceae</i>	
3. <i>Mangifera indica</i> L.	-	<i>Anacardiaceae</i>	
4. <i>Ficus benghalensis</i>	-	<i>Moraceae</i>	
5. <i>Annona squamosa</i> L.	-	<i>Annonaceae</i>	
6. <i>Polyalthia longifolia</i> (sonn.)	-	<i>Annonaceae</i>	
7. <i>Ficus religiosa</i> L.	-	<i>Moraceae</i>	
8. <i>Jacaranda mimosifolia</i>	-	<i>Bignoniaceae</i>	
9. <i>Pettaphorum pterocarpum</i>	-	<i>Caesalpinaceae</i>	
10. <i>Spathodea campanulata</i>	-	<i>Bignoniaceae</i>	
11. <i>Parika biglandulosa</i>	-	<i>Mimosaceae</i>	
12. <i>Sterculia foetida</i>	-	<i>Malvaceae</i>	
13. <i>Phyllanthus emblica</i>	-	<i>Euphorbiaceae</i>	
14. <i>Ficus racemosa</i>	-	<i>Moraceae</i>	
15. <i>Palbergia sissoo</i>	-	<i>Papilionaceae</i>	
16. <i>Aloevera</i>	-	<i>Asphodelaceae</i>	
17. <i>Bryophyllum pinnatum</i>	-	<i>Crassulaceae</i>	
18. <i>Catharanthus roseus</i>	-	<i>Apocynaceae</i>	
19. <i>Cissus quadrangularis</i>	-	<i>Vitaceae</i>	
20. <i>Sauropus androgymus</i>	-	<i>Phyllanthaceae</i>	
21. <i>Psidium guava</i> Guava			
22. -		<i>Myrtaceae</i>	
23. <i>Syzygium cumini</i>	- <i>Myrtaceae</i>	- <i>Neredu</i>	
24. <i>Pithecollobium dulce</i> (Roxb) Benth	-	<i>Fabaceae</i>	- <i>seema chintha</i>
25. <i>Ficus religiosa</i>	-	<i>Moraceae</i>	- <i>Ravi</i>
26. <i>Ixora coccinia</i>			- <i>Rubiaceae</i> -
<i>Nooruvarahalu</i>			
27. <i>Adenium obesum</i>		- <i>Apocynaceae</i>	
28. <i>Bougainvillea spectabilis</i>	- <i>Nyctaginaceae</i>	- <i>Kagithala puvvu</i>	
29. <i>Nerium oleander</i>	- <i>Apocynaceae</i>	- <i>Ganneru</i>	
30. <i>Canna indica</i>	- <i>Cannaceae</i>	- <i>Guruvinda</i>	
31. <i>Bryophyllum pinnatum</i>	- <i>Crassulaceae</i>	- <i>Seemajemudu</i>	
32. <i>Asparagus racemosus</i>	- <i>Asparagaceae</i>	- <i>Sathaveru</i>	
33. <i>Murraya koenighi</i>	- <i>Rutaceae</i>	- <i>Karivepaku</i>	
34. <i>Timospora cordifolia</i>	- <i>Menispermaceae</i>	- <i>Tippateega</i>	
35. <i>Euphorbia hirta</i>	-	<i>Euphorbiaceae</i>	
36. <i>Indigofera astragalina</i>	-	<i>Papilionaceae</i>	
37. <i>Roystonea regia</i>	-	<i>Arecaceae</i>	
38. <i>Alvizia lebbeck</i> (L.) Benth	-	<i>Fabaceae</i>	



# Generation of QR codes - list of plants

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1. *Alstonia scholaris* (L.) - Apocynaceae ✓
2. *Azadirachta indica* A. Juss - Meliaceae ✓
3. *Mangifera indica* L. - Anacardiaceae ✓ 2018
4. *Ficus benghalensis* - Moraceae ✓ 2018
5. *Annona squamosa* L. - Annonaceae ✓ 2018
6. *Polyalthia longifolia* (Sonn.) - Annonaceae ✓
7. *Ficus religiosa* L. - Moraceae ✓
8. *Jacaranda mimosifolia* - Bignoniaceae ✓
9. *Peltophorum pterocarpum* - Caesalpinaceae ✓
10. *Spathodea Campanulata* - Bignoniaceae ✓
11. *Parkia biglandulosa* - Mimosaaceae ✓
12. *Sterculia foetida* - Malvaceae ✓
13. *Phyllanthus emblica* (-) - Euphorbiaceae ✓ 2018
14. *Ficus racemosa* - Moraceae ✓
15. *Dalbergia sissoo* - Papilionaceae ✓
16. *Aloe vera* - Asphodelaceae ✓
17. *Bryophyllum pinnatum* - Crassulaceae ✓
18. *Catharanthus roseus* - Apocynaceae ✓
19. *Cissus quadrangularis* - Vitaceae ✓
20. *Scaevola taccada* - Phyllanthaceae ✓
21. *Psidium guava* - Myrtaceae - Guava (2018) ✓ - Jorrapala
22. ~~Scaevola~~ *Syzygium cumini* - Myrtaceae - Neredu
23. *Pithecellobium dulce* (Roxb) Benth - Fabaceae - Seemachinthe
24. *Ficus religiosa* - Moraceae - Ravi - Sacred fig tree ✓
25. *Ixora coccinea* - Rubiaceae - Nooruvarathalu
26. *Adenium obesum* - Apocynaceae -
27. *Bougainvillea spectabilis* - Nyctaginaceae ✓ - Kagithalapuvvu
28. *Nerium Oleander* - Apocynaceae - gannaru
29. *Canna indica* - Cannaceae - Guruvinda
30. ~~*Bryophyllum pinnatum* - Crassulaceae - Seemajemudalu~~
31. *Asparagus racemosus* - Asparagaceae - Sathavelu
32. *Murraya koenigii* - Rutaceae - Karivepaku ✓
33. *Tinospora cordifolia* - Menispermaceae - Tippateega



## Generation of QR Code to the newly planted Saplings (28.4.2022)

Department of Botany has adopted to identify plants present and planted newly in the College Campus as a part of Telangana Harithaaram on 28.4.2022. The popularity of QR codes for encoding information such as URIs has increased exponentially in step with the technological advances and availability of smartphones, digital tablets and other electronic devices.

We tagged QR codes to the newly planted saplings in the college campus. On this occasion our Principal Sir Dr. B. Rajendra Kumar emphasized the importance of QR codes and protection of plants. Faculty and students participated and tagged QR codes to the plants. Students scanned the QR codes and got <sup>basic</sup> information of the plant. Total 20 saplings were tagged. like.

Tagged at B-Block (opposite) Near WEC

1. *Embolica officinalis*

2. *Annona squamosa*

3. *Psidium Guava*

4. *Schizigium eumini*

5. *Tradescantia spathacea*

6. *Pongamia pinnata*

7. *Codiaeum variegatum*

8. *Ixora chinensis*

9. *Hibiscus*

10. *Jasmine*

11. *Rosa sinensis*

12. *Kalanchoe diagraphemontiana*

13. *Clitoria ternatea*

14. *Agave americana*

15. *Ranunculus*

16. *Chlorophyllum comosum*

17. *Adenium obesum*

18. *Tacarantha mimosifolia*

19. *sterculia foetida*

20. *Catharanthus roseus*

B. Sofia Lam