### Green Audit Certificate

This is to certify that Government Meera Girls College, Udaipur, Rajasthan has conducted "Green Audit" on March 1st, 2021 to assess the Green initiative planning, efforts, activities implemented in the College campus like plantation, waste management, conservation of solar energy and various environment awareness activities. This Green Audit is also aimed to assess the impact of green initiatives for maintenance of the campus eco-friendly. The activities and measures carried out by college have been physically verified based on the report submitted and was found to be satisfactory. The efforts taken by the faculty and students towards environment and sustainability are highly appreciated and commendable.

Place: Udaipur Date: 01-03-2021

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# Govt. Meera Girls' College, Udaipur (Raj.



## Green Audit Report 2020 – 2021

## Submitted by

Head
Department of Botany
and
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## **Green Audit Report**

### Govt. Meera Girls' College, Udaipur, Rajasthan

Govt. Meera Girls' College is situated in the heart of Udaipur – The City of Lakes in Rajasthan. It is situated at 24.59 °N Latitude and 73.69°E Longitude. It is the only Government Girls College in the Udaipur city with approximately 6000 students' capacity. Total area of College Campus is 41, 425 sq.m. out of which 31,325 sq.m. cover constructed area. Rest of the area of campus (which is approx. 25%) is covered with Green cover.

Green cover of the campus is spread among different zones namely Herbal garden, Botanical garden, Rashi Vatika, Sarswati garden, Meera Vatika and Oval garden. Nearly 2000 plants are growing in these zones.

Out of these zones, Botanical garden is situated in East direction having different types of plants which have been categorized as Gymnosperm, Pteridophytes, and Angiosperms according to systematic position. There are seven gymnosperms, 26 xerophytes, eight monocots, 19 Dicot trees and rest 16 are Dicot shrubs.

Herbal garden is situated in west of college building having 42 different plants with valuable medicinal properties. Rashi Vatika is situated in South of college building having 16 sacred plants referring to 12 zodiac signs. Meera Vatika is having different types of Gymnosperms and ornamental angiosperms.. Oval garden is in front of the main building of the College and having various types of trees, shrubs and ornamental seasonal herbs.

A beautiful Saraswati garden is situated in north direction in which different types of Gymnosperms and ornamental shrubs are enhancing the beauty of the statue of Maa Saraswati.

All these gardens are monitored and maintained by Udyan Vikas and Harit Parisar Committee of College. A 100 years old well is located in the West of College building acting as a huge water reservoir. Rain water harvesting system is also installed in the College campus.

Solar energy is harnessed through solar geysers which are installed on roof top of Tribal Hostel of Govt. Meera Girls College, Udaipur.

## BOTANICAL GARDEN

#### **BOTANICAL GARDEN**

A well maintained botanical garden is present in premises of Govt. Meera Girls' College. Udaipur. Various sections such as Angiosperms, Gymnosperms and Pteridophytes include different species of plants.

#### **GYMNOSPERMS**

- 1. Araucaria sp.
- 2. Cupressus sp.
- 3. Cycas circinalis
- 4. Cycas revoluta
- 5. Pinus sylvestris
- 6. Thuja occidentalis
- 7. Zamia sp.

#### **ANGIOSPERMS**

Angiosperms include Xerophytes, Dicotyledons and Monocotyledons.

#### **DICOTYLEDONS**

- 1. Acalypha indica
- 2. Ailanthus excelsa
- 3. Azadirachta indica
- 4. Barleria prionitis
- 5. Bauhinia variegata
- 6. Bougainvillia spectabilis
- 7. Caesalpinia bonduc
- 8. Catharanthus roseus
- 9. Cordia sp.
- 10. Croton bonplandianum
- 11. Dianthus chinensis
- 12. Ficus benghalensis
- 13. Guazoma ulmifolia
- 14. Hibiscus rosa-sinensis
- 15. Jatropha curcus
- 16. Madhuca indica
- 17. Mangifera indica
- 18. Millingtonia hortensis
- 19. Morus alba
- 20. Murraya paniculata
- 21. Nerium indicum
- 22. Parkinsonia aculeata
- 23. Polyalthia longifolia
- 24. Pongamia pinnata
- 25. Psidium guajava
- 26. Putranjiva roxburghii
- 27. Rivinia sp.
- 28. Tabernaemontana divaricata
- 29. Tamarindus indicus

- 30. Tecoma stans
- 31. Tecomella undulata (State Flower of Rajasthan)
- 32. Tectona grandis
- 33. Thevetia peruviana
- 34. Tinospora cordifolia
- 35. Ziziphus mauritiana

#### MONOCOTYLEDONS

- 1. Cheilocostus speciosus
- 2. Canna indica
- 3. Crinum asiaticum
- 4. Dendrocalamus strictus
- 5. Dracaena sp.
- 6. Hymenocallis littoralis
- 7. Scadoxus multiflorus
- 8. Spathiphyllum wallisii

#### **XEROPHYTES**

- 1. Agave americana
- 2. Aloe vera
- 3. Asparagus meyeri
- 4. Asparagus densiflorus
- 5. Asparagus racemosus
- 6. Asparagus setaceus
- 7. Asparagus aethiopicus
- 8. Asparagus filicinus
- 9. Bryophyllum pinnatum
- 10. Cocoloba
- 11. Euphorbia antiquorum
- 12. Euphorbia milli
- 13. Euphorbia pulcherima
- 14. Euphorbia scandens
- 15. Euphorbia sp.
- 16. Euphorbia tirucalli
- 17. Euphorbia tithymaloides
- 18. Ferocactus
- 19. Opuntia dillenii
- 20. Opuntia ficus-indica
- 21. Opuntia stricta
- 22. Ruscus hypoglossum
- 23. Sansevieria cylindrica
- 24. Sansevieria trifasciata
- 25. Tradescantia spathacea
- 26. Vitis rotundifolia

#### HERBAL GARDEN

#### PLANTS GROWING IN HERBAL GARDEN

- 1. Abutilon indicum
- 2. Acacia nilotica
- 3. Acalypha indica
- 4. Aegle marmelos
- 5. Aloe vera
- 6. Asparagus racemosus
- 7. Azadirachta indica
- 8. Barleria prionitis
- 9. Bombax ceiba
- 10. Bryophyllum pinnatum
- 11. Catharanthus roseus
- 12. Cissus quadrangularis
- 13. Coleus barbatus
- 14. Commiphora wightii
- 15. Curcuma longa
- 16. Cymbopogon citratus
- 17. Datura sp.
- 18. Eclipta alba
- 19. Eucalyptus citriodora
- 20. Ficus bengalensis
- 21. Gymnema sylvestris
- 22. Justicia adhatoda
- 23. Lawsonia inermis
- 24. Madhuca longifolia
- 25. Mirabilis jalapa
- 26. Murraya koenigii
- 27. Nyctanthes arbor-tristis
- 28. Ocimum tenuiflorum
- 29. Ocimum basilicum
- 30. Phyllanthus emblica
- 31. Plumbago zeylanica
- 32. Rauvolfia serpentina
- 33. Ricinus communis
- 34. Rosa centifolia
- 35. Terminalia arjuna
- 36. Terminalia bellerica
- 37. Thespesia populnea
- 38. Thuja orientalis
- 39. Tinospora cordifolia
- 40. Tylophora indica
- 41. Vitex negundo
- 42. Zingiber officinalis

## RASHI VATIKA

(Established: 25.08.2014)

S. No.	Zodiac sign	Common name	Botanical name	Family
1.	मेष (Aries)	Raktchandan	Pterocarpus santalinus	Fabaceae
2.	वृषभ (Taurus)	Saptparni	Alstonia scholaris	Apocynaceae
3.	मिथुन (Gemini)	Ghrit Kumari	Aloe vera	Xanthorrhoeaceae
4.	कर्क (Cancer)	Palash Khirni	Butea monosperma Wrightia tinctoria	Fabaceae Apocynaceae
5.	शिंह (Leo)	Patala, Padal	Stereospermum suaveolens	Bignoniaceae
6.	कन्या (Virgo)	Mango	Mangifera indica	Anacardiaceae
7.	तुला (Libra)	Maul Shree	Mimusops elengi	Sapotaceae
8.	वृधिक (Scorpio)	Kattha, Khair	Acacia catechu	Mimosaceae
9.	धनु (Saggittarius)	Peepal Rattan Palm	Ficus religiosa  Calamus rotang	Moraceae Arecaceae
10	. मकर (Capricorn)	Sagwan Sheesham	Tectona grandis Dalbergia sissoo	Verbenaceae Fabaceae
11	. कुम्भ (Aquarius)	Shami	Prosopis cineraria	Mimosaceae
12	. मीज (Pisces)	Vat Banana	Ficus bengalensis Musa X paradisiaca	Moraceace Musaceae

<sup>\*</sup>राशि वाटिका में प्रथम राशि मेष, पूर्व दिशा से प्रारम्भ की गयी हैं।

## List of some important plants growing in premises of Govt. Meera Girls College, Udaipur

- 1. Acacia catechu
- 2. Adansonia digitata
- 3. Aegle marmelos
- 4. Ailanthus excelsa
- 5. Araucaria sp.
- 6. Bauhinia variegata
- 7. Bombax ceiba
- 8. Butea monosperma
- 9. Callistemon lanceolatus
- 10. Cascabela thevetia
- 11. Cassia fistula
- 12. Casuarina equisetifolia
- 13. Ceiba pentandra
- 14. Citrus limon
- 15. Commiphora wightii
- 16. Cordia dichotoma
- 17. Cupressus sempervirens
- 18. Cycas circinalis
- 19. Dalbergia sissoo
- 20. Delonix regia
- 21. Dendrocalamus strictus
- 22. Erythrina variegata
- 23. Eucalyptus citriodara
- 24. Ficus benghalensis
- 25. Ficus benjamina
- 26. Ficus racemosa
- 27. Ficus religiosa
- 28. Grevillea robusta
- 29. Guazuma ulmifolia
- 30. Hibiscus rosa-sinensis
- 31. Holoptelea integrifolia
- 32. Madhuca longifolia
- 33. Magnolia champaca

- 34. Mangifera indica
- 35. Mimusops elengi
- 36. Moringa oleifera
- 37. Morus alba
- 38. Murraya koenigii
- 39. Nerium oleander
- 40. Nyctanthes arbor-tristis
- 41. Opuntia species
- 42. Phyllanthus emblica
- 43. Pinus sylvestris
- 44. Pleioblastus fortunei
- 45. Polyalthia longifolia
- 46. Prosopis cineraria
- 47. Psidium guajava
- 48. Pterocarpus santalinus
- 49. Punica granatum
- 50. Putranjiva roxburghii
- 51. Ricinus communis
- 52. Roystonea regia
- 53. Spathodea campanulata
- 54. Stereospermum chelonoides
- 55. Syzygium cumini
- 56. Tabernaemontana divaricata
- 57. Tamarindus indica
- 58. Tecoma capensis
- 59. Tecoma stans
- 60. Tecomella undulata
- 61. Tectona grandis
- 62. Terminalia arjuna
- 63. Terminalia bellirica
- 64. Thespesia populnea
- 65. Thevetia peruviana
- 66. Thuja occidentalis

#### UDYAN VIKAS AND HARIT PARISAR COMMITTEE

The term "Go Green" has become a popular term in the today's world. Green and clean environment is very beneficial and attract everyone and gives suitable environment for work. Keeping this in mind, Udyan Vikas and Harit Parisar Committee keep the college campus clean, green and beautiful throughout the academic session. Many programs like plantation, cleanliness programs etc. are being organised by the committee throughout the session.

In this program, Rajasthan's State flower tree "Rohida" was planted in the College campus.

Botanical garden and Meera Vatika.

Plantation programs were organised under the guidance of Committee in-charge Dr. Savita Chahar and committee members, Dr. Anita Kawdia, Dr. Manisha Choubisa and Dr. Nasreen Banu.

Sometimes, we know the economic and medicinal values of plants but could not identify the plants found in the different gardens of college and in our surroundings. Due to this, name plates having botanical names, families, local names and uses were prepared and put on 100 plants of different species grown in different gardens of college *e.g.* Sarswati Vatika, Botanical garden, Herbal garden, Meera-vatika, Rashi vatika and College campus by the Principal Dr. Nidhi Shrivastava, Vice Principal Dr. Shashi Sanchihar, Committee members, faculty members, Clerical staff and fourth class employee on 18.08.2020. The Hindi name, common name, botanical name, plant family and uses of plants were written on every plant name plate.

A out campus plantation program was organised by the committee on 08.09.2020 and planted 25 medicinal and ornamental plants in Savitri Bai Phoole Hostel of Social Justice and Rights Dept. Rajasthan Sarkar Udaipur (Raj.)

Two Compost pits were dug in the Botanical garden and in the Herbal garden of the college, these compost pits were used for preparing compost by dumping fallen leaves and other green garbage's. The compost is beneficial for soil fertility, so that it becomes good for cultivation. The

compost pit practice helps to reduce the waste, prepare compost by zero cost and clean the environment,

A plantation programme is organized in July 2014 under the Monsoon Utsav. Many ornamental, medicinal and rare plants were planted by students and faculty members. Special plants e.g. State tree of Rajasthan *Khejri, Rakt Chandan*, Christmas tree, *Katha* and Jackfruit were planted in the month of October, 2017.

In these programs about 150 medicinal, ornamental and special plants such as *Amla. Arjun, Shahtoot, Sheesham, Chandani, Sarpgandha*, Rose, China rose were planted in the College Campus by following government norms of COVID-19.

On the occasion of Mahatma Gandhi Jayanti, a "Polythene free" awareness campaign was organised on 2 October, 2015 to clean the campus, which results that the campus became polythene free.

The RASHI VATIKA is established on August 25, 2014. The plants were planted according to Rashi (Horoscope).

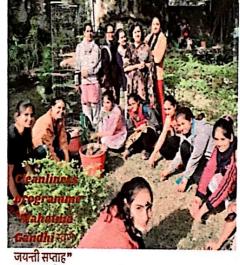
Under the scheme of One Student-One Plant, the students planted various plants which are used for Botany practicals such as *Cycas, Pinus, Zamia*, Ferns, *Euphorbia pulcherrima*, *Murraya*. China rose, Bottle brush. Under the scheme of One Plant-One Student, the responsibility of caring the plants are given to the students of science, commerce and arts.



Inauguration of Plant name plates by Dr. Nidhi shrivastav, Principal Govt. Meera Girls
College Udaipur (Raj.) Dated 18.08.2020

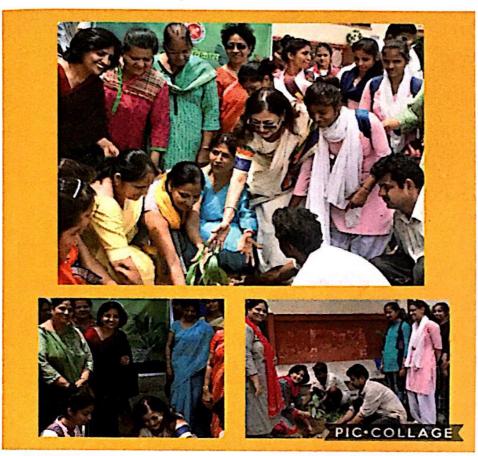


Plantation of "ROHIDA", Rajasthan state flower plant dated 25/7/19



October 2019

PIC-COLLAGE





## Vermicompost Processing and Training Programs Sessions 2019-20 & 2020-21

Vermicompost processing units have been established during the session 2019-20 under the aegis of Innovation and Skill Development Cell in Botanical Garden of the college. As vermicompost is a nutrient rich organic fertilizer and soil conditioner which is relatively easy for plants to absorb. For establishment of vermicompost unit, vermiculture (earthworm species) organic matter in the form of litter, soil, and cow dung and neem khad were mixed in beds and monitored from time to time for maintaining humid environment and other climatic factors necessary.

Experts in vermicomposting were invited and their suggestions were taken into consideration. It took more than six month in complete processing of the material. The final product was sieved and filled in sacs for use. Along with this a training program was organized for M.Sc. Previous & Final students of Botany and Zoology. The students also helped in running the program of processing the unit successfully. Finally processed organic fertilizer which was approximately 150 kg. was used mainly in plantation program in the campus and in nourishing already growing plant in Botanical garden Herbal garden, Rashi vatika, Saraswati vatika and rest of the campus plants.

A new unit has been established in October 2020 for the same purpose in which processing is going on. The new batches of M.Sc. Students of Botany and Zoology have been enrolled for the training program. Students are regularly learning and taking care of the processing of vermicompost in the supervision of Vermicompost Committee comprising of Dr. Farhat Banu, Dr. Nadeem Chisty, Dr. Nasreen Banu, Dr. Kiran Tak of the college.





Vermicompost processing units in Govt. Meera Girls College campus, Udaipur





### SOLAR ENERGY CONSERVATION IN TRIBAL HOSTEL

According to Dr. Jyoti Gautam, Warden Tribal Hostel of Government Meera Girls College, Udaipur Rajasthan has a capacity to accommodate 204 girl students. They had to use cold water for bathing in winter. Therefore, keeping in mind their inconvenience, the Tribal Area Development Department installed solar geysers in the hostel in session 2019-20. It has six solar panels and two water tanks.



Place: Udaipur Date: 01-03-2021 Dr. Savita Chahar Head, Dept. of Botany & Convener, Garden Committee

The report has been physically verified.

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