

TITLE OF THE PRACTICE

Gardening: A multidisciplinary approach

OBJECTIVES OF THE PRACTICE:

- To inculcate a clean green, eco-friendly concept among the students
- To promote eco-friendly, sustainable, organic horticulture-based lifestyle
- To increase awareness about relevant environmental and biodiversity conservation issues in the community.
- To educate students practically the importance and values of plants
- To enhance organic gardening skills for the student community.
- To help, provide and maintain a cleaner green environment.
- To enhance the aesthetic value in the campus

The Context

Gardening of plants are to open up new frontiers in education institutional value system. Focusing on the multidisciplinary approaches of plant-based education will provide enormous opportunities to the student community. Since time immemorial, gardening plants have played a pivotal role in providing the aesthetic values of an institution, in addition to providing fresh air, enhances the general well-being and also serves as a source of medicine in the treatment of various ailments. This has come true in the case of treating Covid-19 patients with the help of medicinally important plants. Plants have always been considered as major repository and best resources for maintaining a better environment for the well-being of humans.

The Practice:

Gardening has been popular in India since ancient times. No one can resist the beauty and serenity of Nature. A good garden with fragrant and vividly colourful myriad variety of flowers, various kinds of tall green trees that provides shade and fresh air, smooth carpet of tiny grass, can bring down the modern-day stress. It gives peace of mind to the entire community the utmost necessity of a human life.

The Sourashtra College, Madurai, is situated on the foothills of a hillock in close proximity to the southern Western Ghats of India. The campus is very spacious with an area of approximately 50 acres. Of which only 25% is covered by highly ventilated class rooms, staff rooms and administrative buildings, and the remaining 75% of the campus is occupied with wild and planted trees, shrubs, and herbs. Since its inception, our institution has been practicing gardening in the campus through

growing various kinds of ornamentals and useful plants in different garden systems viz., 1. Avenue plants (table 1), 2. Medicinal Plants Garden / Herbal organic garden. There are varieties of medicinal plants such as *Adhatoda vasica*, *Abrus precatorius*, *Acalypha indica*, *Achyranthes aspera*, *Aerva lanata*, *Aloe vera*, *Andrographis paniculata*, *Catharanthus roseus*, *Cissus quadrangularis*, *Coleus aromaticus*, *Cymbapogon citratus*, *Cynodon dactylon*, *Emblica officinalis*, *Hibiscus rosa-sinensis*, *Lawsonia inermis*, *Leucas aspera*, *Murraya koenigii*, *Nerium oleander*, *Ocimum sanctum*, *Phyllanthus amarus*, *Sanservieria roxburghiana*, *Santalum album*, *Tribulus terrestris*, *Tridax procumbens*, *Vitex negundo* etc., grown in our garden. 3. Fruit orchard garden cultivated with different types of fruit yielding plants such as *Carica papaya*, *Mangifera indica*, *Punica granatum*, *Manilkara zapota*, *Psidium guajava*, *Musa sp.* All these plants are maintained by our students and gardener.

EVIDENCE OF SUCCESS:

By designing and constructing various kinds of gardens in the campus, and through bringing the natural setting and surroundings close to the institution, we strive to create an ideal learning atmosphere. Such integrated gardening approach helps teaching and learning besides help reduces the stress-related health issues and also bridges the gap between students and teachers in the campus.

Students are educated practically the importance and values of selected plants like toxic / poisonous plants, natural dye-yielding plants, economic plants, ornamentals, beautiful herbs, shrubs, climbers, trees and wildlife by directly showing and using the wild and planted species in the campus. It help, provide and maintain a cleaner green environment with ambient microclimate having improved quality of air, water and land and to mitigate the urban pollution impact in the campus. The enhanced aesthetic values in the campus reduce stress among the students as well as the staff.

Chemistry students are directly observing medicinal plants, understand their important medicinal values and bioactive molecules of these plants.

Preliminary list of tree species in main avenues of Sourashtra College campus			
S.No	BOTANICAL NAME WITH AUTHOR CITATION	FAMILY NAME	TAMIL NAME
1	POLYALTHIA LONGIFOLIA (Sonn.) Thwaites	ANNONACEAE	Nettilingam
2	AEGLE MARMELOS (L.) Correa ex Schultz	RUTACEAE	Vilvam
3	AZADIRACHTA INDICA A. Juss.	MELIACEAE	Vembu; Veppa maram
4	ZIZIPHUS MAURITIANA Lam.	RHAMNACEAE	Elanthai
5	FICUS BENGALENSIS L.	MORACEAE	Aalamaram
6	FICUS RELIGIOSA L.	MORACEAE	Arasamaram
7	PONGAMIA PINNATA (L.) Pierre	FABACEAE	Pongai
8	ALBIZIA LEBBECK (L.) Benth.	MIMOSACEAE	Vagai
9	LEUCAENA LEUCOCEPHALA (Lam.) De wit	MIMOSACEAE	Subabul
10	PROSOPIS JULIFLORA (Sw.) DC.	MIMOSACEAE	Seemai Karuvel
11	BAUHINIA TOMENTOSA L.	CAESALPINIACEAE	Mantharai
12	CASSIA FISTULA L.	CAESALPINIACEAE	Sarakkondrai
13	CASSIA ROXBURGHII DC.	CAESALPINIACEAE	
14	DELONIX REGIA (Hook.) Raf.	CAESALPINIACEAE	Senkonrai
15	PELTOPHORUM PTEROCARPUM (DC.) K. Heyne	CAESALPINIACEAE	Kondrai
16	SENNA SIAMEA (Lam.) Irwin & Barnbey	CAESALPINIACEAE	
17	TAMARINDUS INDICA L.	CAESALPINIACEAE	Arjuna maram
18	TERMINALIA CATAPPA L.	COMBRETACEAE	Vadam; Badam
19	EUCALYPTUS GLOBULUS Labill.	MYRTACEAE	Thailamaram
20	MORINDA PUBESCENS Sm.	RUBIACEAE	Nuna
21	CASCABELA THEVETIA (L.) Lippold	APOCYNACEAE	Thiruvachipoo
22	MIMUSOPS ELENGI L.	SAPOTACEAE	Mahilam
23	MILLINGTONIA HORTENSIS L.f.	BIGNONIACEAE	Maramalli
24	TECOMA STANS (L.) Juss. ex Kunth	BIGNONIACEAE	Nagasam
25	GMELINA ARBOREA Roxb.	VERBENACEAE	Kumilam
26	BOUGAINVILLEA SPECTABILIS Willd.	NYCTAGINACEAE	Kagithapoo

Programme I

World Environment Day Celebration on 5th June, 2021

World Environment Day was celebrated on 5th June, 2021 at Sourashtra College (Autonomous), Madurai, Tamil Nadu - 625 004. In commemoration of world environmental day a One - Day virtual seminar on “Tackling Environmental Challenges for Sustainable Future” was organized by Internal Quality Assurance Cell (IQAC) & Department of Botany. A total of 185 registered participants from various parts of India China and UAE and were part of the virtual seminar. Google forms (<https://forms.gle/NAbyJu1KkfJbnfCf9>) were used for registration. The seminar was conducted on Google Meet platform (<https://meet.google.com/wgt-fsig-puk>).

The programme was invoked with prayer followed by the welcome address delivered by Dr. Vijayakumar, NAAC, Co-ordinator. He welcomed the distinguished guests and the participants. Prof. N.H. Saravanan, Principal (i/c) presided over the webinar and briefed the importance of environment and environment day. Dr. M. Venkatesan, Convener & Organizing Secretary introduced the chief guest and indicated the essence of the program (Theme: ecosystem restoration). **Dr. M. G. EBBIE, Assistant Professor of Botany, Presidency College (Autonomous), Chennai, Tamil Nadu, India,** spoke on the topic “**Tackling Environmental Challenges for Sustainable Future**”. He made emphasis on the status of the environment in the past and present. He reiterated that the water resource in the country has to be preserved and conserved. He appealed to the young minds to work on the conservation of biodiversity in the Western Ghats. As a take home message he emphasized the importance of tree planting and judicious use of sustainable energy resources.

Programme II

A special talk on Sustainable Development Goals for Ecosystem and Biodiversity conservation on 16th November, 2021

An Environmental awareness and Eco-Club inaugural programme took place on 16th November, 2021 in Silver Jubilee Hall of Sourashtra College (Autonomous), Madurai, Tamil Nadu - 625 004. Programme started at 11.00 am with prayer followed by lightening of Kuthuvilakku by Dr. D.R. Kumaresh, Secretary, Prof. N.H. Saravanan, Principal (i/c), Dr. V.K. Vijayakumar, NAAC- Co-

ordinator, Dr. T.D. Venkateswaren, IQAC, Co-ordinator of our college and Dr.M.Muralidharan (Chief Guest). Prof. G.Kalaivani (Eco-Club-Programme coordinator), welcomed the gathering, Dr.N.P.Krishnan (Eco-Club- Co-convener) specified the significance of Eco-Club in the college. Prof. N.H. Saravanan, Principal (i/c) presided over the inaugural function and briefed the importance of environmental consciousness and Dr. D.R.Kumaresh, felicitated the programme and also imparted the implication of planting and maintenance of trees in the college campus to the students. Dr.N. Gnanaguru (Eco-Club-Programme coordinator) introduced the chief guest, **Dr.M.Muralidharan (Assistant professor, Sri Paramakalyani Centre for Environmental Sciences, M.S. University, Alwarkurichi)**. He delivered a lecture on **Sustainable Developmental Goals (SDG) for Ecosystem and Biodiversity conservation**. He spoke about all the SDGs are interconnected, integrating social and economic and environmental sustainability. He also highlighted importance of flora and fauna for balanced ecosystem and continuing environmental services. Students of BA, BBA, B.Com and B.Sc. of our college were benefited. Dr. M. Venkatesan, (Eco-Club-Convener) thanked the College Management and Principal for providing an opportunity for initiating the Eco-Club in the college and also thanked the Heads, faculty members, administrative staff and technical people for their valuable support in conducting the programme.

Problem encountered:

The institution has implemented a number of rain water harvesting system in the various buildings of this college. In spite of the structural challenges in the buildings rain water harvesting is being carried out. During summer water becomes scarce due to depletion of ground water and most of our bore wells become dry. As per the suggestions and instructions from the IQAC drip irrigation system has been implemented in the garden for better management of garden plants.

Title of the practice: ACADEMIC AUDIT

Objectives of the practice:

1. To assess the academic performance of individual faculty in a department.
2. To assess the academic performance of the department as a whole.
3. To identify the strengths and limitations of the department.

Underlying Principles involved in this Practice:

The Academic Audit, like more traditional program reviews, is a peer review process including a self-study and by peers from outside the institution. Unlike the traditional approach to program evaluation, this process emphasizes self-reflection and self-improvement rather than compliance with pre-determined standards. The purpose of an Academic Audit is to encourage departments or programmes to evaluate their “education quality processes” – the key faculty activities required to produce, assure and regularly improve the quality of teaching and learning. An Audit asks how faculty approach educational decision making and how they organize their work, using the resources available to them and working collegially to provide a quality education in the best interests of the discipline and student learning.

Academic Audit is a best practice to be continued in any organization for better results. By conducting Academic Audit, the strength and weaknesses of the Department can be assessed. The quantification of the academic performance helps us to compare the academic performance of Departments and Members of Faculty. This practice develops a healthy competition among the Members of Faculty of each Department and also among the Departments.

The Practice:

The Academic Audit for the year 2021 – 2022 was conducted on 26 August, 2022. There are totally 26 Departments, out of which 20 are UG and 6 are PG. External Experts from different institutions visited the respective Department of our college. One external expert for each Department visited the Department and gave their remarks on the following aspects.

- Programme Outcomes

- Programme Specific Outcomes
- Course Outcomes
- Teaching – Learning Process
- Quality of Laboratory Experience (Science)
- Initiatives related to Industry Interaction
- Assessment

The Experts also assessed and evaluated regarding whether

- The courses are current and relevant
- The curriculum aligns with the institutional goals and objectives
- The Programmes link with each other
- The textbooks and reference books are relevant
- The curriculum is employable and has aspects on values
- The teaching strategies are relevant to the learning needs of the students

The Experts also discussed with the faculty members and assessed the quality and quantity of

- Research Activities, Publications, Guideship of the Department
- Usage of ICT
- Student centric activities
- Evaluation (Internal and External) Pattern
- Remedial Coaching

The Purpose:

The purpose of the Academic Audit is to provide a regular strategic overview of each department's curriculum, teaching, learning, research, evaluation and student – centric activities. It is the process by which the authorities assure themselves of the quality of the learning process.

The Academic Audit is conducted every year in our college. In this year too, the experts investigated the activities of the Department with the supporting documents. They conducted onsite evaluation through check of documents and interaction with the Faculty Members. Each Department presented their activities through PowerPoint presentation. The reports of the experts consolidated the findings and suggestions. The Audit Report was prepared citing commendation, affirmation and recommendation for each Department.

Evidence of Success:

After conducting the academic audit regularly, we found a significant improvement of the individual faculty with regard to attending seminars, publishing papers, undertaking consultancy, organizing seminars / workshops, maintaining records etc.