

Best Practice I:

1. Title of the Practice

Medicinal Plant Garden

2. Objectives of the Practice

Facilitating students and employees of the college to learn about various plants and herbs having medicinal properties.

3. The Context

Botany Honours students have to study 'Plant Systematics' and 'Medicinal and Ethnobotany'. Hence, the presence of a medicinal plant garden supplemented their theoretical knowledge of this portion of the syllabus.

4. The Practice

Maulana Azad College takes pride in a 'char-bagh' or four blocks of square gardens situated at the front of the campus. Teachers and students of the college have studied the composition of plant diversity, and identified the individuals. Out of the 142 plant species present here, 74 are medicinal herbs.

5. Evidence of Success

The diverse flora harbours a variety of animal species including pollinators that help to sustain ecological balance in the highly polluted central Kolkata region where the college is located. The presence of medicinal herbs adds to its scientific and social importance.

6. Problems Encountered and Resources Required

As the medicinal plant garden serves a significant purpose, it is imperative that the different plant species are preserved. At times, this is hampered as a few of them wilt and have to be replaced.

| LIST OF MEDICINAL PLANTS AT MAULANA AZAD COLLEGE | | | | | |
|--|---------------------------------|-------------|--------------------|--------|--------------------------|
| | Scientific Name | Family | Common Name | Number | Type (herb/ shrub/ tree) |
| 1 | <i>Barleria lupulina</i> Lindl. | Acanthaceae | Kantabisollokoroni | 14 | Shrub |

| | | | | | |
|----|--|---------------|--------------------------------|----------|---------------|
| 2 | <i>Andrographis paniculata</i> (Burm.f.) Nees | Acanthaceae | Kalmegh, Greenchiretta | 4 | Herb |
| 3 | <i>Aerva sanguinolenta</i> (L.) Blume | Amaranthaceae | Bisollokoroni | Numerous | Herb |
| 4 | <i>Mangifera indica</i> L. | Anacardiaceae | Mango, Aam | 2 | Tree |
| 5 | <i>Centella asiatica</i> (L.) Urban | Apiaceae | Thankuni, Gotu kola | 12 | Herb |
| 6 | <i>Alstonia scholaris</i> (L.) R.Br. | Apocynaceae | Chatim, Blackboard tree | 3 | Tree |
| 7 | <i>Plumeria rubra</i> L. | Apocynaceae | Red frangipani | 5 | Shrub |
| 8 | <i>Tabernaemontana divaricata</i> R.Br. ex Roem. & Schult. | Apocynaceae | Togor, Crepe jasmine | 72 | Shrub |
| 9 | <i>Nerium oleander</i> L. | Apocynaceae | Korobi | 2 | Shrub |
| 10 | <i>Rauwolfia serpentina</i> (L.) Benth. ex Kurz | Apocynaceae | Sarpagandha, Indian snakeroot | 16 | Shrub |
| 11 | <i>Holarrhena pubescens</i> Wall. ex G. Don 1837 | Apocynaceae | Kurchi | 2 | Shrub |
| 12 | <i>Gymnema sylvestre</i> R. Br. | Apocynaceae | Gurmar | 3 | Shrub |
| 13 | <i>Catharanthus roseus</i> (L.) G. Don | Apocynaceae | Nayantara | 4 | Herb |
| 14 | <i>Hemidesmus indicus</i> (L.) R. Br. ex Schult. | Apocynaceae | Indian Sarsaparilla, Anantamul | 4 | Twinning Herb |
| 15 | <i>Sansevieria cylindrica</i> Bojer ex Hook. | Asparagaceae | Mahadev jata | 2 | Herb |
| 16 | <i>Aloe barbadensis</i> Mill. | Asphodelaceae | Ghritkumari, Aloevera | 10 | Shrub |
| 17 | <i>Helianthus annuus</i> L. | Asteraceae | Sunflower | 3 | Shrub |
| 18 | <i>Eupatorium triplinervis</i> M. Vahl | Asteraceae | Ayapan, Water hemp | 4 | Shrub |
| 19 | <i>Wedelia calendulacea</i> (L.) Less. | Asteraceae | Mahabhingraj | Numerous | Creeper |
| 20 | <i>Eclipta alba</i> (L.) Hassk. | Asteraceae | False daisy | 16 | Herb |
| 21 | <i>Vernonia cinerea</i> (L.) Less. | Asteraceae | Little ironweed | Numerous | Herb |
| 22 | <i>Eclipta prostrata</i> (L.) L. | Asteraceae | Kesuti, False daisy | 24 | Herb |

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|----|---|---------------|------------------------------|----------|----------|
| 23 | <i>Commiphora wightii</i> (Arn.) Bhandari | Burseraceae | Guggul | 1 | Shrub |
| 24 | <i>Trema orientale</i> (L.) Blume | Cannabaceae | Pigeon wood | 6 | Shrub |
| 25 | <i>Carica papaya</i> L. | Caricaceae | Papaya | 5 | Herb |
| 26 | <i>Terminalia catappa</i> L. | Combretaceae | Indian-almond | 1 | Seedling |
| 27 | <i>Commelina benghalensis</i> L. | Commelinaceae | Kanshira | 90 | Herb |
| 28 | <i>Tradescantia spathacea</i> Sw. | Commelinaceae | Boat lily | 43 | Herb |
| 29 | <i>Chamaecostus cuspidatus</i> (Nees & Mart.) C. Specht & D. W. Stev. | Costaceae | Insulin plant | 20 | Herb |
| 30 | <i>Kalanchoe pinnata</i> (Lam.) Pers. | Crassulaceae | Patharkuchi | 6 | Herb |
| 31 | <i>Coccinia grandis</i> (L.) Voigt | Cucurbitaceae | Talakochu, Ivy gourd | 10 | Vine |
| 32 | <i>Melothria pendula</i> L. | Cucurbitaceae | Creeping cucumber | 2 | Creeper |
| 33 | <i>Thuja sp.</i> L. | Cupressaceae | | 4 | Shrub |
| 34 | <i>Dioscorea communis</i> (L.) Caddick & Wilkin | Dioscoreaceae | Black bryony, Black bindweed | Numerous | Herb |
| 35 | <i>Acalypha indica</i> L. | Euphorbiaceae | Indian acalypha | Numerous | Herb |
| 36 | <i>Euphorbia hirta</i> L. | Euphorbiaceae | Asthma plant | 14 | Herb |
| 37 | <i>Bauhinia purpurea</i> L. | Fabaceae | Kanchan | 1 | Tree |
| 38 | <i>Pterocarpus santalinus</i> L. | Fabaceae | Red sandalwood | 1 | Tree |
| 39 | <i>Bauhinia acuminata</i> L. | Fabaceae | White orchid | 1 | Shrub |
| 40 | <i>Mimosa pudica</i> L. | Fabaceae | Lajjabati, Touch-me-not | 2 | Herb |
| 41 | <i>Vitex negundo</i> L. | Lamiaceae | Nisinda | 8 | Shrub |
| 42 | <i>Ocimum canum</i> Sims | Lamiaceae | Bon tulasi | 42 | Herb |
| 43 | <i>Ocimum gratissimum</i> L. | Lamiaceae | Ram tulasi | 44 | Herb |

| | | | | | |
|----|--|----------------|---------------------------|----------|----------|
| 44 | <i>Lawsonia inermis</i> L. | Lythraceae | Mehendi, Henna | 2 | Tree |
| 45 | <i>Magnolia champaca</i> (L.) Baill. Ex Pierre | Magnoliaceae | Champak | 1 | Tree |
| 46 | <i>Hiptage benghalensis</i> (L.) Kurz | Malpighiaceae | Madhabilata | 2 | Shrub |
| 47 | <i>Bombax ceiba</i> L. | Malvaceae | Shimul tree | 1 | Tree |
| 48 | <i>Hibiscus rosa-sinensis</i> L. | Malvaceae | China rose | 16 | Shrub |
| 49 | <i>Azadirachta indica</i> A. Juss. 1830 | Meliaceae | Neem tree | 5 | Tree |
| 50 | <i>Ficus religiosa</i> L. 1753 | Moraceae | Ashvatthatree, Sacred fig | 5 | Tree |
| 51 | <i>Ficus benghalensis</i> L. 1753 | Moraceae | Banyan | 6 | Tree |
| 52 | <i>Ficus hispida</i> L.f. | Moraceae | Dumur | 75 | Seedling |
| 53 | <i>Syzygium cumini</i> (L.) Skeels. | Myrtaceae | Jamun, Java plum | 1 | Tree |
| 54 | <i>Nyctanthes arbor-tristis</i> L. | Oleaceae | Shiuli | 2 | Shrub |
| 55 | <i>Jasminum sambac</i> (L.) Aiton | Oleaceae | Arabian jasmine | 16 | Shrub |
| 56 | <i>Oxalis corniculata</i> L. | Oxalidaceae | Creeping woodsorrel | Numerous | Herb |
| 57 | <i>Emblica officinalis</i> Gaertn. | Phyllanthaceae | Amla, Indian gooseberry | 2 | Tree |
| 58 | <i>Piper longum</i> L. | Piperaceae | Pipul, Indian long pepper | 4 | Shrub |
| 59 | <i>Antirrhinum majus</i> L. | Plantaginaceae | Garden snapdragon | 6 | Herb |
| 60 | <i>Plumbago zeylanica</i> L. | Plumbaginaceae | Swetchitrak | 6 | Shrub |
| 61 | <i>Cynodon dactylon</i> (L.) Pers. | Poaceae | Durva grass | Numerous | Herb |
| 62 | <i>Aegle marmelos</i> (L.) Correa | Rutaceae | Indian bael | 1 | Tree |
| 63 | <i>Citrus maxima</i> Merr. | Rutaceae | Batabilebu, Pomelo | 1 | Tree |

| | | | | | |
|----|--|------------------|-----------------------------|----------|-------|
| 64 | <i>Murraya paniculata</i> (L.) Jack | Rutaceae | Kamini | 9 | Shrub |
| 65 | <i>Mimusops elengi</i> L. | Sapotaceae | Bokul, Spanish cherry | 2 | Tree |
| 66 | <i>Madhuca indica</i> J.F.Gmel. | Sapotaceae | Mohua | 2 | Tree |
| 67 | <i>Datura metel</i> L. | Solanaceae | Konokdhutra | 8 | Shrub |
| 68 | <i>Nicotiana plumbaginifolia</i> Viv. | Solanaceae | Tex-Mex Tobacco | 15 | Herb |
| 69 | <i>Datura inoxia</i> Mill. | Solanaceae | Krishna dhutra | 12 | Herb |
| 70 | <i>Christella dentata</i> (Forssk.) Brownsey&Jermy | Thelypteridaceae | Soft fern, Binung | 61 | Fern |
| 71 | <i>Pouzolzia indica</i> (L.) Benn. & R.Br. | Urticaceae | | Numerous | Herb |
| 72 | <i>Curcuma amada</i> Roxburgh | Zingiberaceae | Mango ginger | 2 | Herb |
| 73 | <i>Curcuma caesia</i> Roxb. | Zingiberaceae | Kala Haldi | 1 | Herb |
| 74 | <i>Amomum subulatum</i> Roxb. | Zingiberaceae | Boroelaichi, Black cardamom | 6 | Herb |





KARPUR TULSI
***Ocimum kilimandscharicum* Guerke**
LAMIACEAE



'INSULIN PLANT'/'FIERY COSTUS
***Chamaecostus cuspidatus* (Nees & Mart.) C. S. Gentry & D.W. Stev.**
(Syn. *Costus igneus* N.E.Br.)
FAMILY: COSTACEAE
a. Native of South & Central America, introduced in India recently
b. Fresh leaves used to cure 'DIABETES MELLITUS'