Department of Botany

Best Practices

INDEX

Mahatma Gandhi Vidyamandir's
Samajshree Prashantdada Hiray Arts,
Science and Commerce College, Nampur
Tal. Baglan (Nashik)Website:
https://mgvnampursr.kbhgroup.in/

Department of Botany

(1) Best Practice

1) Title: QR Codes on the Plants in College Campus Displaying Medicinal Uses and Economic Importance

2) Objectives of the Practice

As the present century is the century of information technology the use of digital technology (QR Code) in displaying scientific names of plants on the college campus was the first important objective to adopt this best practice with the following important objectives.
To inculcate a scientific attitude among staff, students, and society about taxonomy and scientific naming of plants by use of modern technology To make awareness among stakeholders of higher education about the importance of nomenclature and binomial nomenclature to reduce chaos due to vernacular names of plants. To display scientific names of plantsin a new style of QR code to attract students to adopt technology to make them eager to know the names of plants. Students are expected to scan the QR code attached to plants and observe the wonder of digital technology and thereby know the scientific name of that plant on the campus. Students expected to meet teachers of life sciences to know more about the plants by observing names by QR code.

3) The Context

It was difficult for botany staff to develop a digital platform for the identification of plants as compared to earlier methods of hanging nameplates on plant branches. For this purpose help to experts from the field of information technology was very crucial. So series of talks with experts were held to adopt digital technology in botanical nomenclature. Finally,the QR code method was selected to adopt. We provided basic information on plants and QR code wear developed as per our expectations.

4) The practice

Before adopting this digital technology earlier name plates were made and hung on every plant on the campus with information like generic name, species name, family etc. However, this method was observed to have limitations due to microbial deterioration and the removal of nameplates by thieves. This new method of digital or QR codes sticking or hanging on plants found to be safe. The QR code is well protected by hard plastic coating so safe and protected from natural deterioration. They are safe and increase eagerness among students to try to scan the code by Android mobile. So that he comes to know the scientific name of the plant its uses etc.. It ignites the student's mind to know more about the plants and their uses in medicine, timber etc. The main constraint faced while adopting this technology was how to fit botanical information in digital format in a safe modern techno innovative way.

5) Evidence of success

After hanging QR codes for plants on the campus, it was observed that a large number of students visited the codes and scanned the codes to learn about plants. Students not only from the science stream but Arts and Commerce faculty students scanned the codes and learned about scientific names and uses of QR code plants. Few students meet with botany teachers and ask questions about the nomenclature of medicinal uses of plants. It represents the success of the use of digital technology in plant identification. Students' awareness increased about the scientific method of binomial nomenclature, taxonomy, and the role of plants in the ecosystem. Role of plants as food, fodder, medicine, timber etc. Thus this digital QR code technology helps students, and teachers to know plants on single finger touch distance.

6) Problems Encountered and Resource Required

The main problem in adopting this digital technology was how to fit botanical information into a digital QR code. For the department, it was a challenging task. So a series of meetings with experts in the field of information technology from our college and also from other colleges and commercial experts were held and finally, the digital draft was prepared as per the expert's expectations. Then the information was moulded to make it suitable for the QR code and finally QR codes wear prepared.

HEAD
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PRINCIPAL
Samajshree Prashantdada Hiray
Arts, Sci. & Comm. College
Nampur, Tal.Baglan (Nashik)

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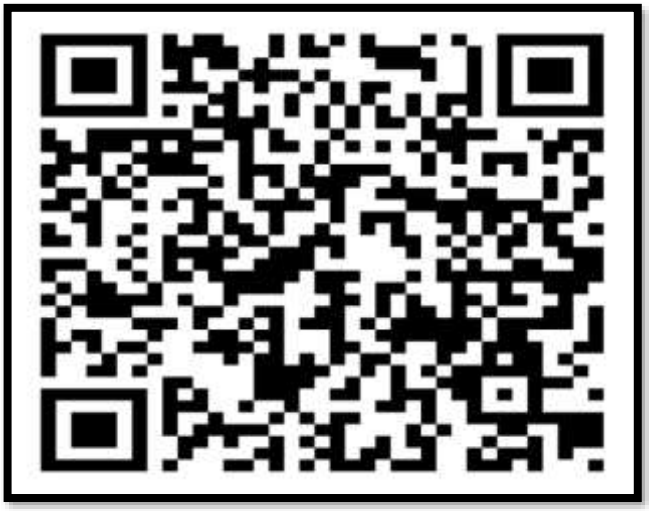
(1) QR Code: *Acacia arabica* Willd. (Babhul Plant)



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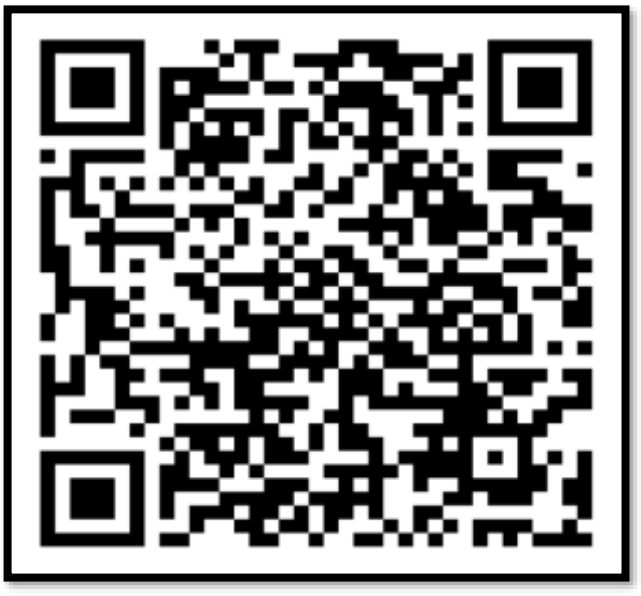
(2) QR Code: *Adhatoda vasica* Nees. (Adulsa Plant)



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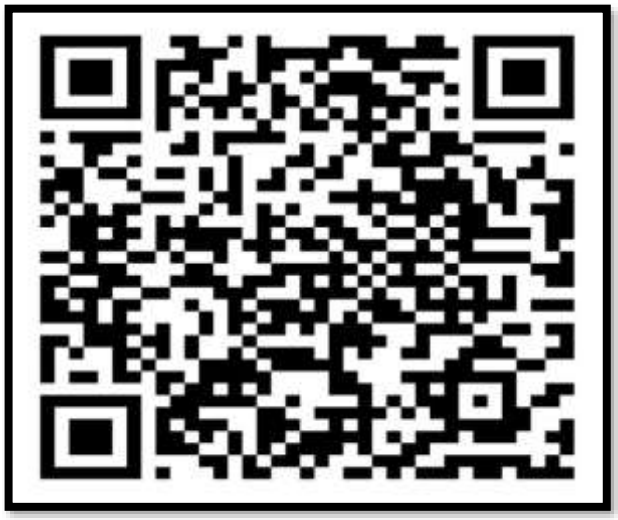
(3) QR Code: *Mangifera indica* Linn. (Mango Plant)



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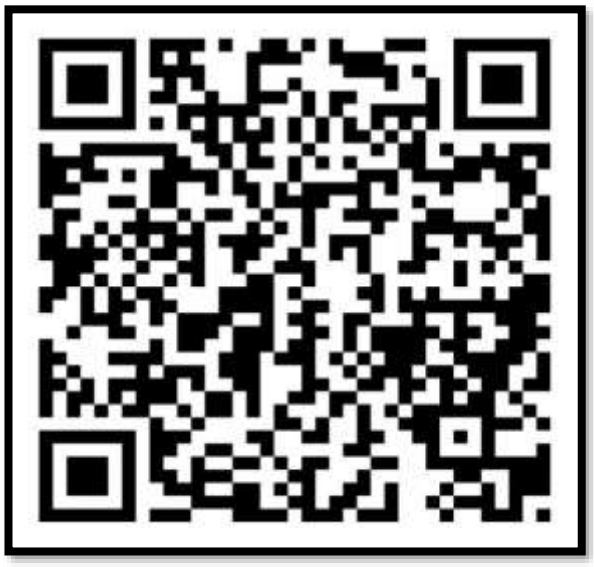
(4) QR Code: *Emblica officinalis* Gaertn. (Awala Plant)



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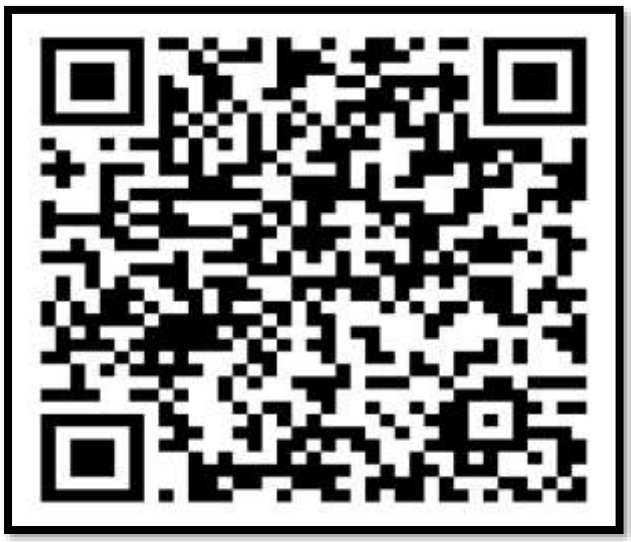
(5) QR Code: *Sesbania grandiflora* Linn.(Hadga Plant)



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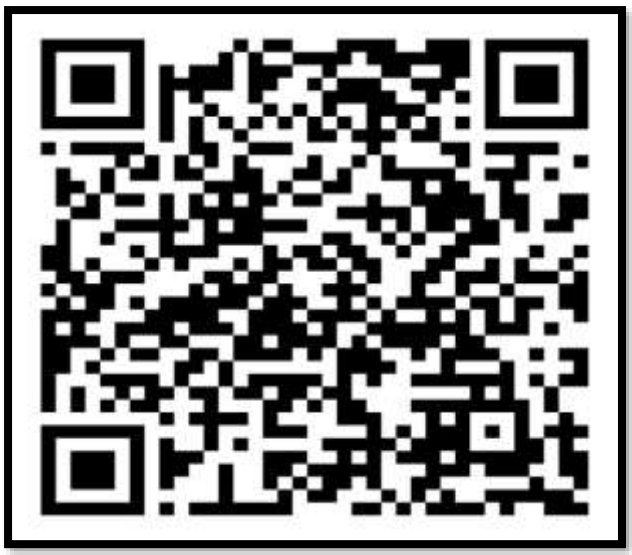
(6) QR Code: *Delonix Regia* (HooK.) Raf. (Gulmohar)



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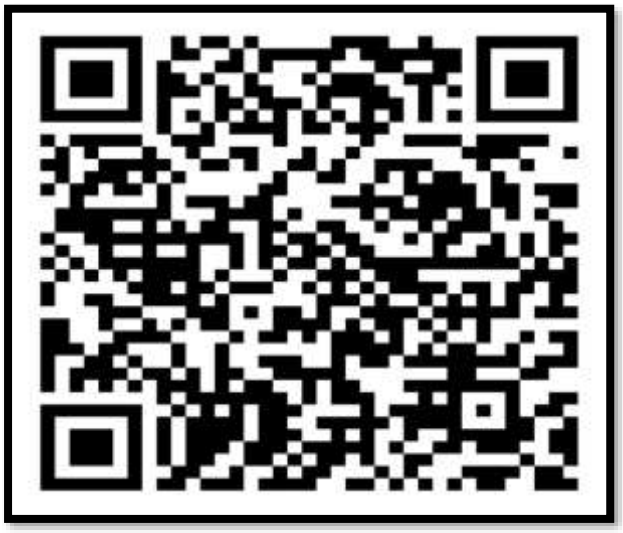
(7) QR Code: *Cassia auriculata* Linn. (Awal, Tarwad)



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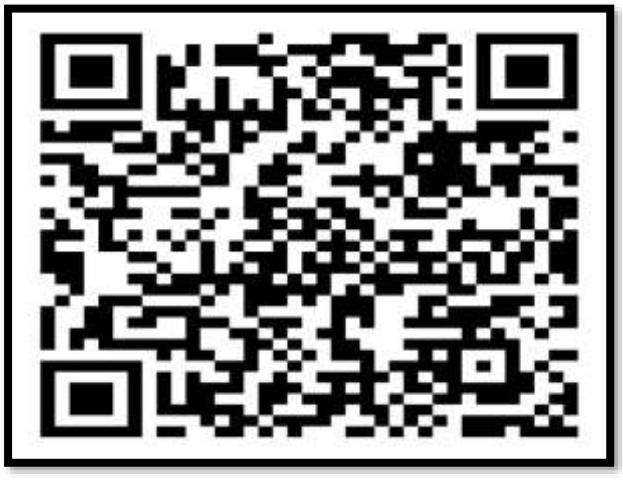
(8) QR Code: *Aegle marmelos* Corr. (Bel)



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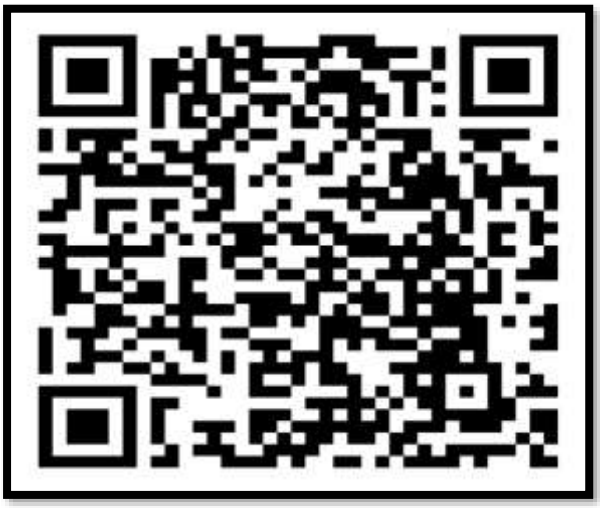
(9) QR Code: *Tectona grandis* L. (Sag, Sagwan)



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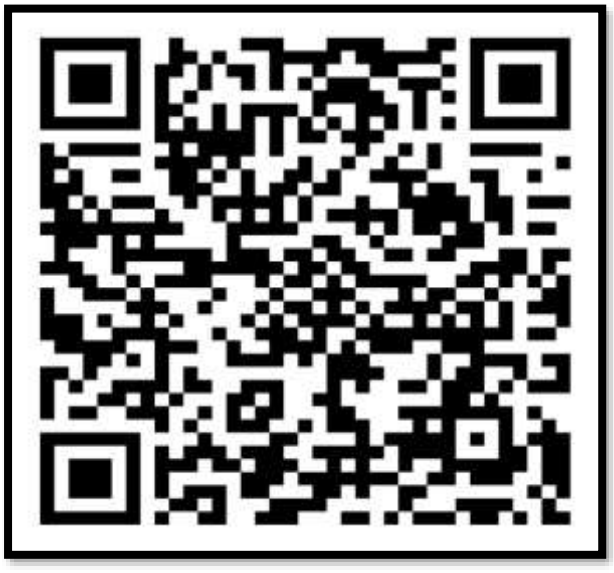
(10) QR Code: *Cassia fistula* L. (Bahava)



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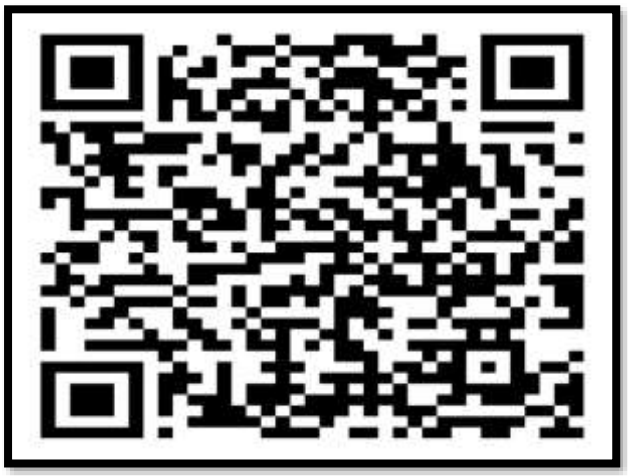
(11) QR Code: *Syzygium cumini* (L.)Skells. var. *Eugenia jambolana* Lam.(Jambhul)



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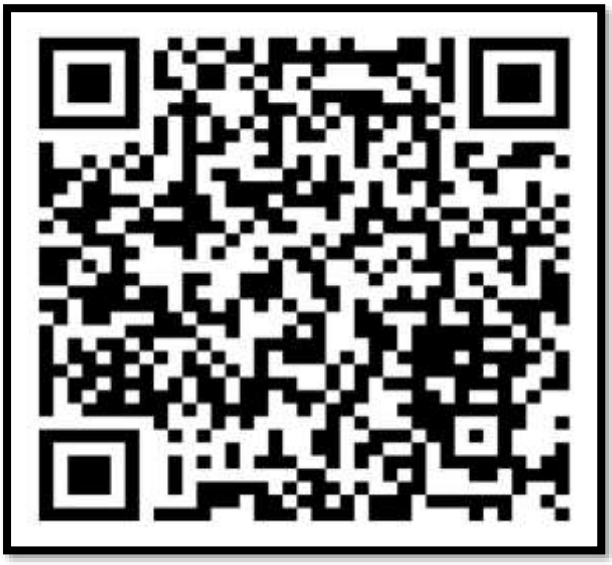
(12) QR Code: *Ficus benghalensis* L. (Vad, Banyan)



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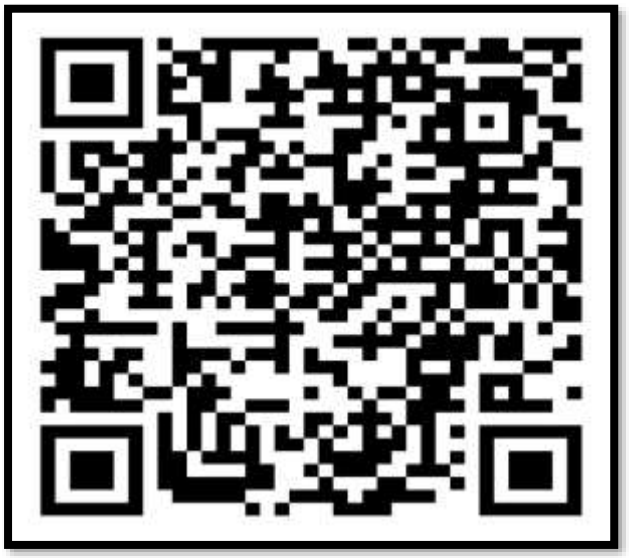
(13) QR Code: *Dalbergia sissoo* Roxb. (Shisav)



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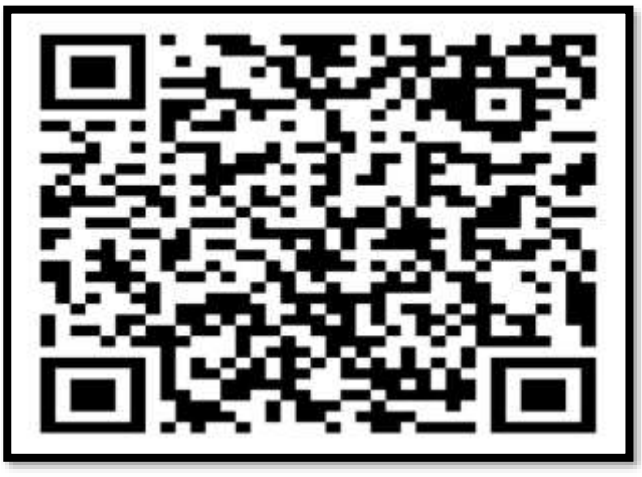
(14) QR Code: *Eucalyptus globulus* Labill. (Nilgiri)



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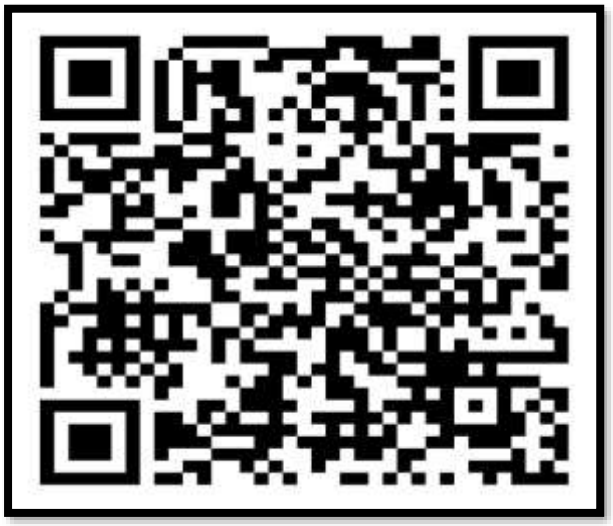
(15) QR Code: *Ficus religiosa* L. (Pimpal, Peepal)



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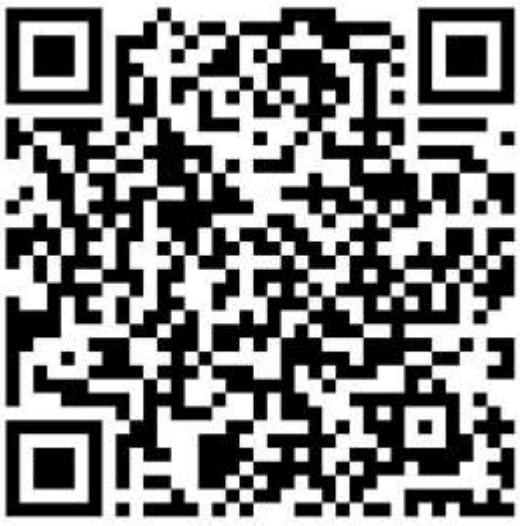
(16) QR Code: *Ficus glomerata* L. (Umbar)



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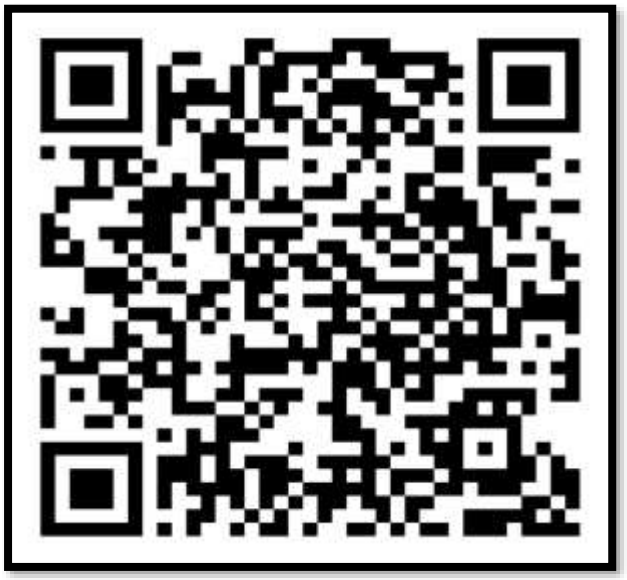
(17) QR Code: *Aloe barbadensis* Mill.(Korpad)



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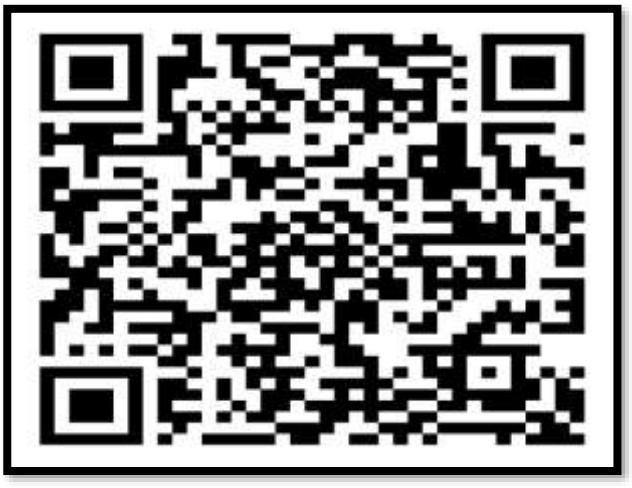
(18) QR Code: *Azadirachta indica* A. Juss. (Neem)



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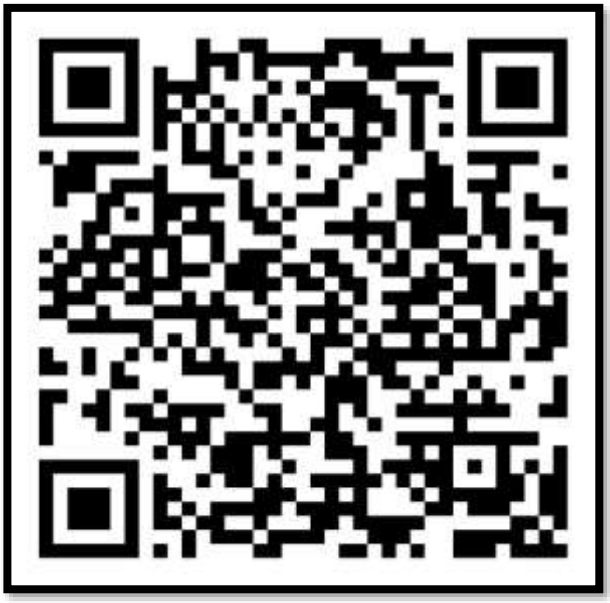
(19) QR Code: *Peltophorum pterocarpum* Baker.

(Yellow Flame Tree)



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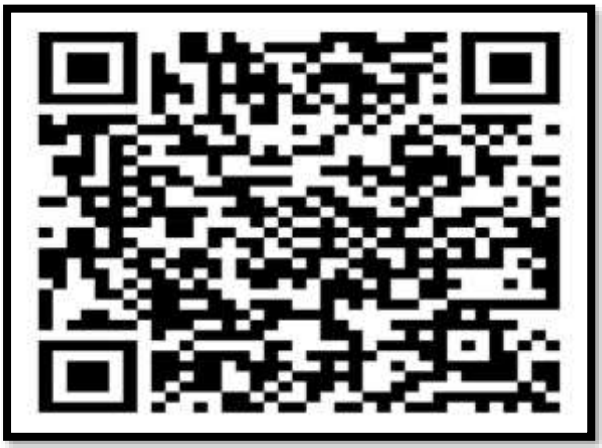
(20) QR Code: *Polyalthia longifolia* B& H (Ashok)



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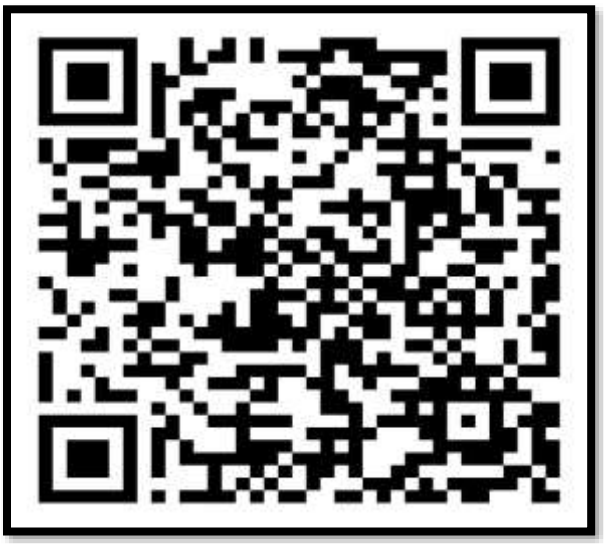
(21) QR Code: *Plumeria pudica* Jacq.(Nag Champa)



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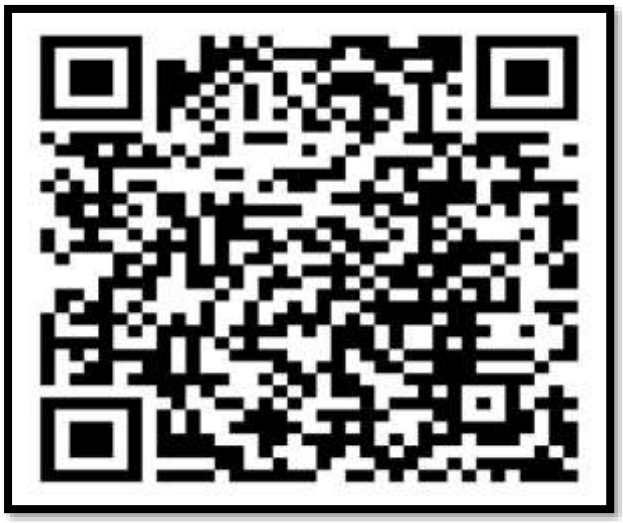
(22) QR Code: *Senna simea* Lam. (Kassod Tree)



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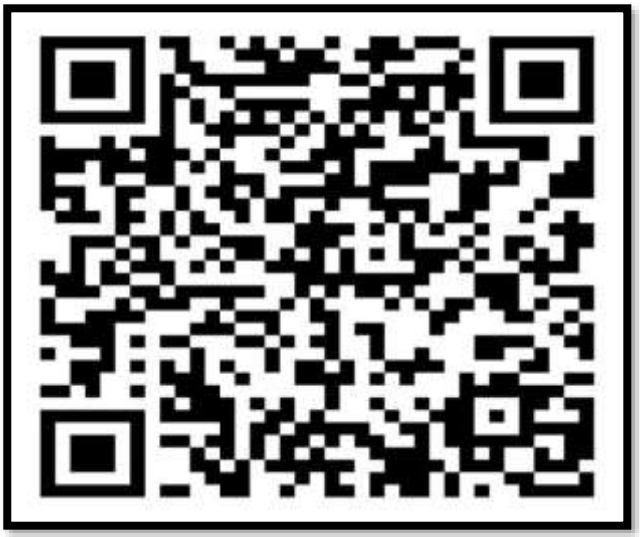
(23) QR Code: *Sapindus trifoliatus* L. (Ritha)



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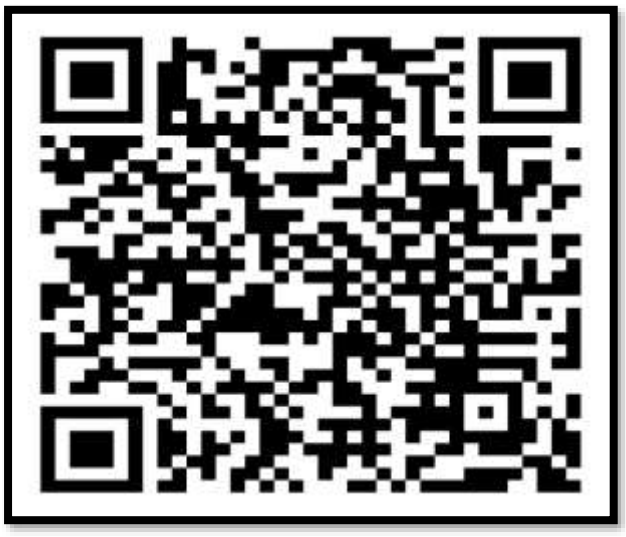
(24) QR Code: *Achras sapota* L. (Chiku)



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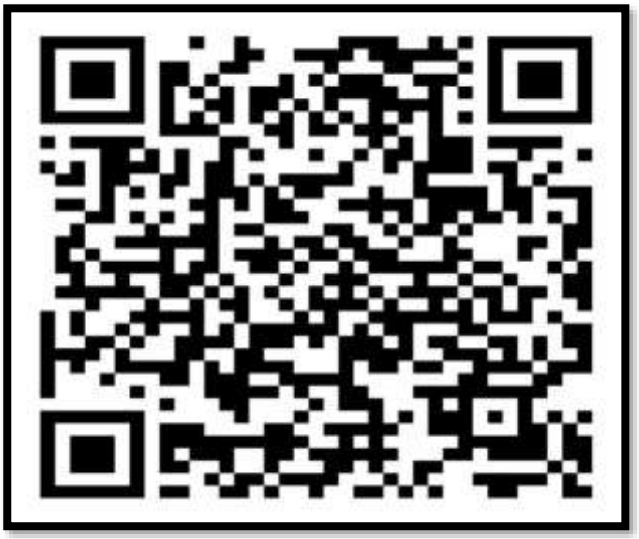
(25) QR Code: *Santalum album*. (Chandan)



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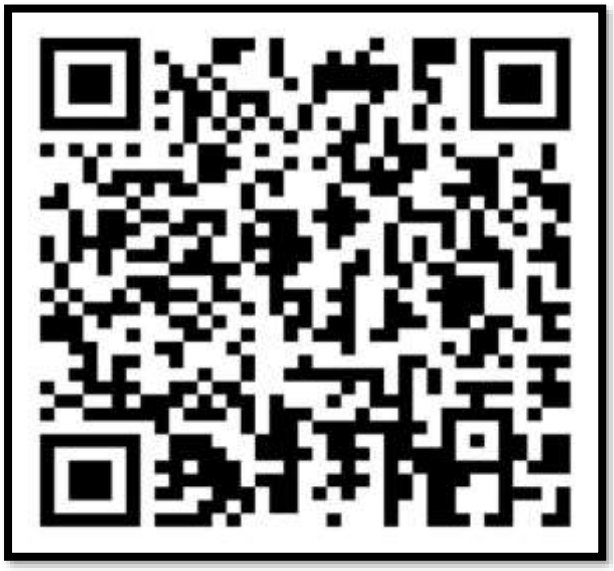
(26) QR Code: *Moringa oleifera* Lamk. (Shevaga)



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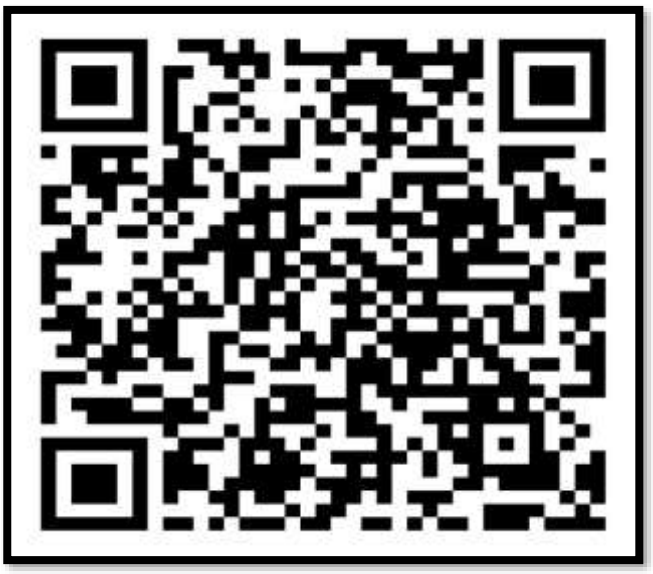
(27) QR Code: *Cocos nucifera* L. (Naral)



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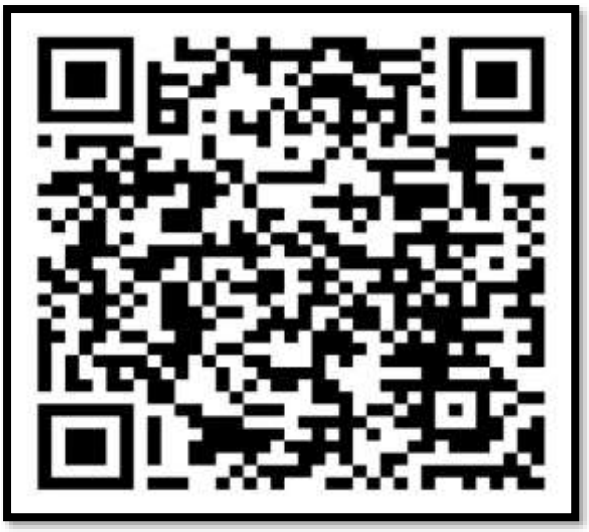
(28) QR Code: *Ocimum sanctum* L. (Tulsi)



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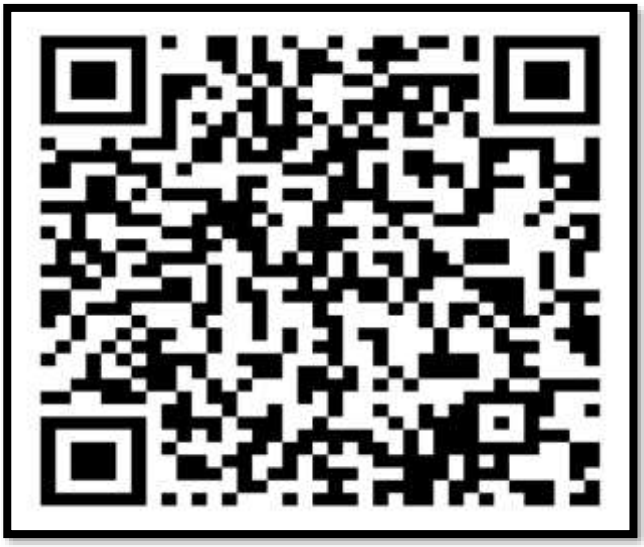
(29) QR Code: *Nyctanthes arbor-tristis* L. (Parijatak)



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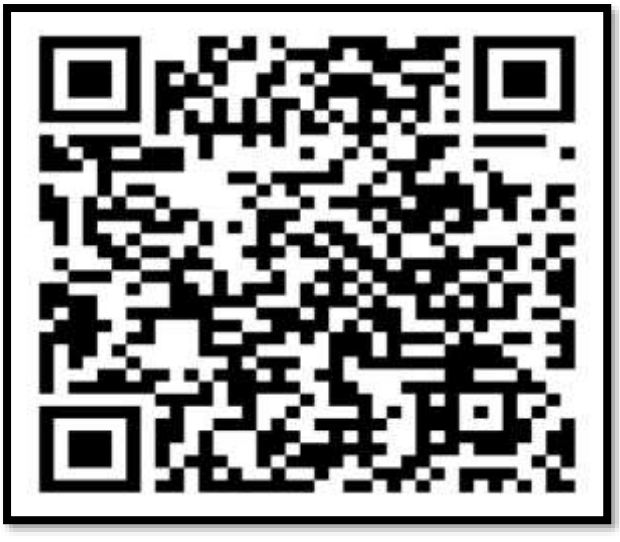
(30) QR Code: **:** *Zizyphus jujuba* L. (Bor)



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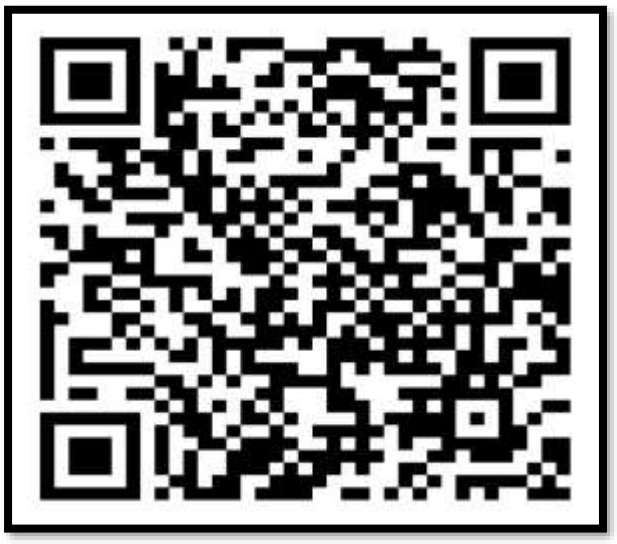
(31) QR Code: *Bougainvillea spectabilis* Willd.(Bougainvel)



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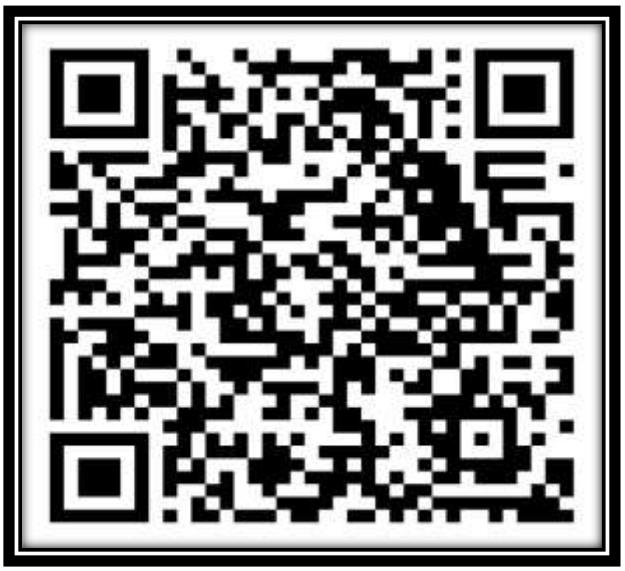
(32) QR Code: *Nerium indicum* Mill.(Kanher)



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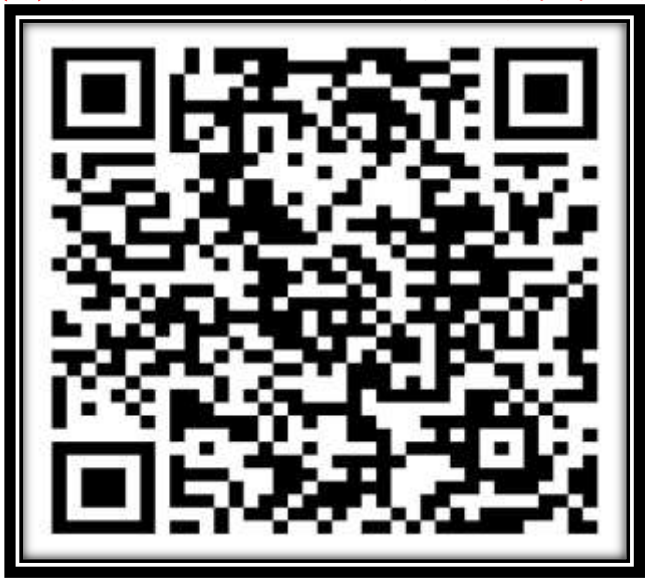
(33) QR Code: Alstonia scholaris (L.) R. Br.(Saptaparni)



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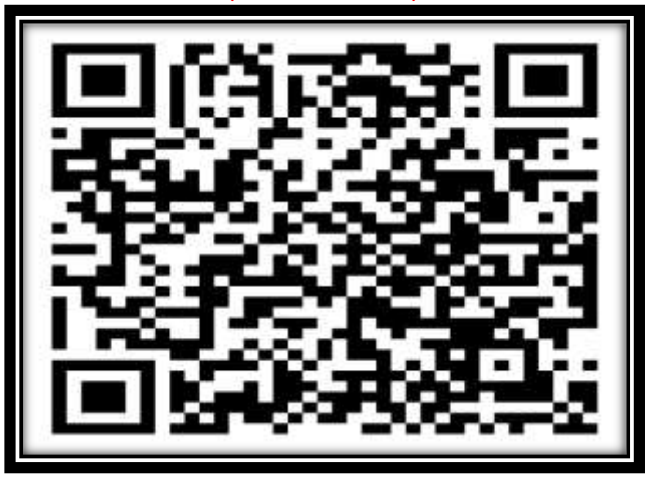
(34) QR Code: *Lantana camara* L
(Amoni Kamoni)



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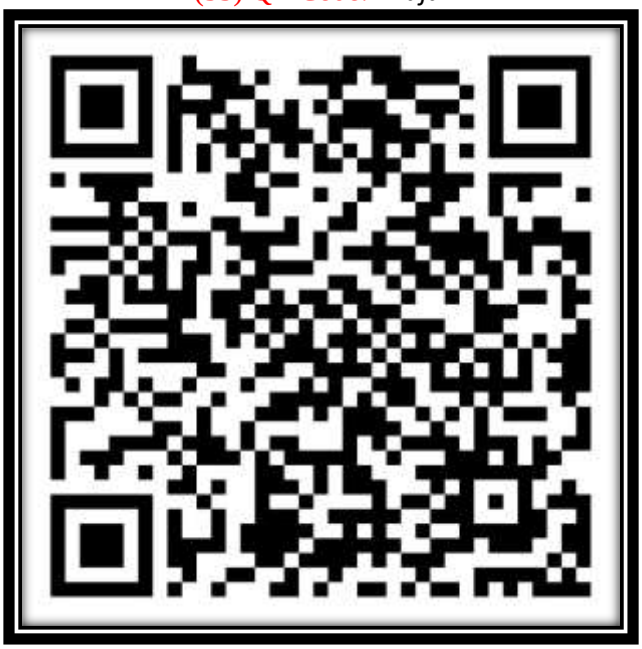
(35) QR Code: *Thuja*



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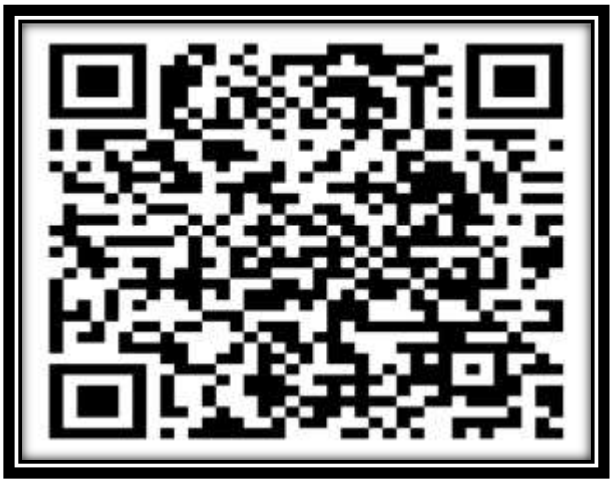
(36) QR Code: *Zamia*



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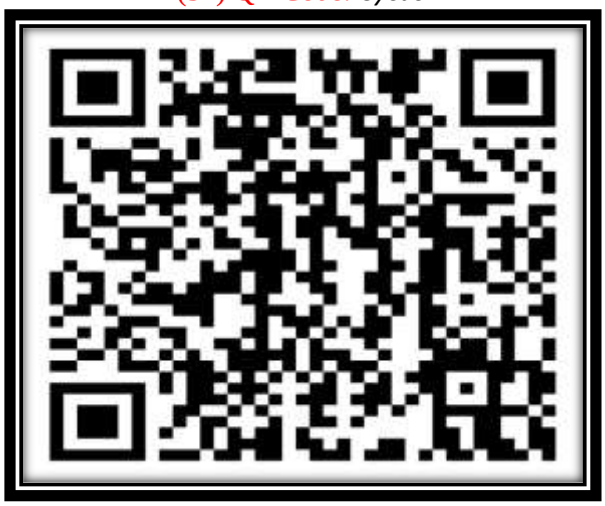
(37) QR Code: *Cycas*



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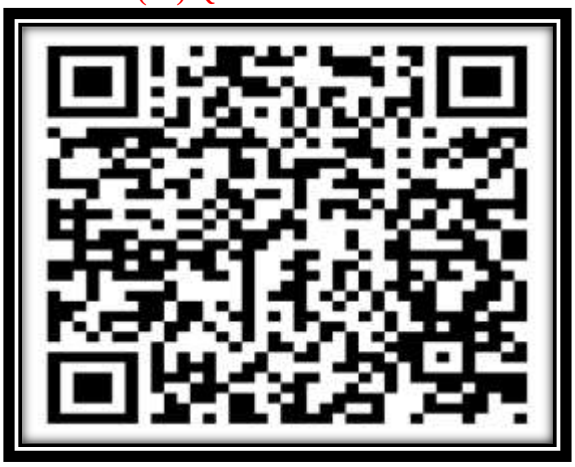
(38) QR Code: *Araucaria*



Department of Botany

(2) Best Practice

Title: Developing Botanical and Forest Gardens for Campus Environment Enrichment

Objectives:

- To promote awareness amongst students about the study and conservation of plant species diversity
- To promote awareness in students about the mechanism of interactions among biotic and abiotic factors of the forest ecosystem.

- The Context
- A botanical garden is a controlled for the maintenance of a living collection of plants
- A scientific management for purposes of education and research

- The Practice
- Botanical Garden, also called Botanic Garden, originally, a collection of living plants designed chiefly to illustrate relationships within plant groups
- A display garden that concentrates on woody plants (Shrubs and Trees) is often referred to as an arboretum

- Evidence of Success
- Botanical Garden holds collections of living plants for scientific research, conservation, display and education

- Problems Encountered and Resources Required
- Collect seeds of endangered plant species is a challenging task
- Getting the required skilled gardener

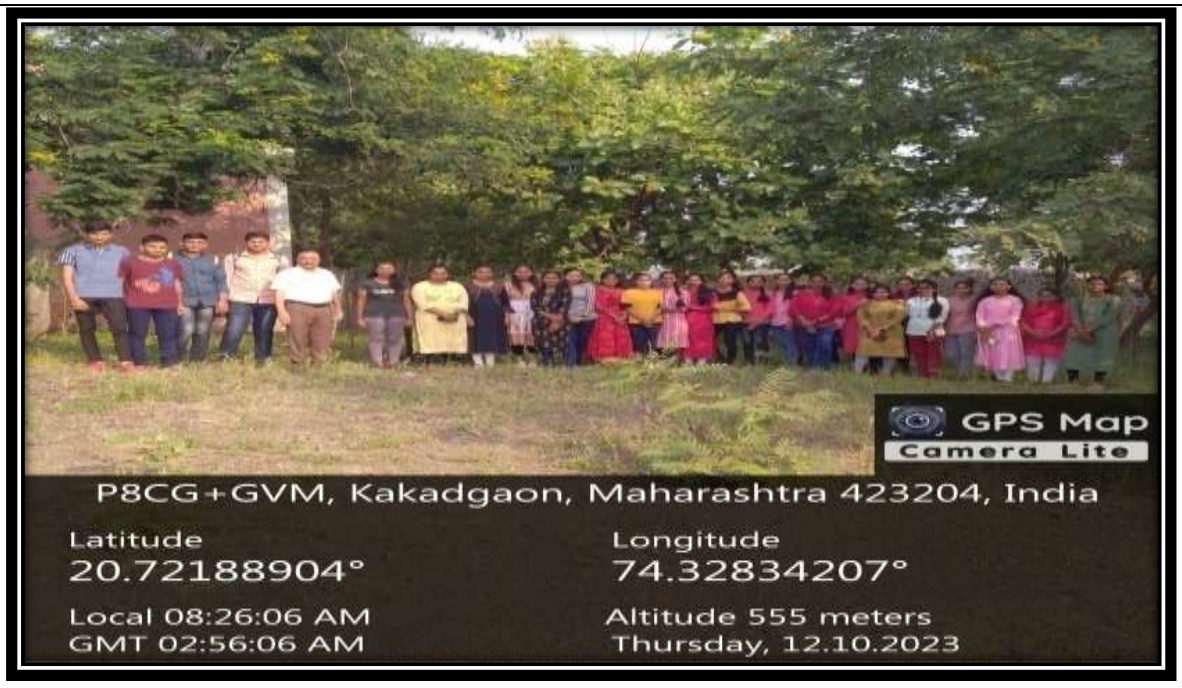
College Campus, Botanical and Forest Garden Flora

The following species of different interest have been planted. Such as.,

Acacia arabica Willd.(Babhul),*Adhatoda vasica* Nees. (Adulsa),*Mangifera indica* Linn. (Amba), *Emlica officinalis* Gaertn.(Awala), *Sesbania grandiflora* Linn.(Hadga), *Delonix regia* (Hook.)Raf. (Gulmohar), *Cassia auriculata* Linn.(Awal), *Aegle marmelos* Corr. (Bel), *Tectona grandis* L. (Sag), *Cassia fistula* L. (Bahava), *Syzygium cumini* (L.)Skells.var. *Eugenia jambolana* Lam. (Jambhul), *Ficus benghalensis* L. (Vad), *Dalbergia sissoo* Roxb. (Shisav), *Eucalyptus globulus* Labill.*(Nilgiri), Ficus religiosa* L. (Pimpal), *Ficus glomerata* Roxb.(Umbar), *Aloe barbadensis* Mill.(Korpad), *Azadirachta indica* A. Juss.Neem), *Peltophorum pterocarpum* Baker.(Yellow Flame Tree), *Polyalthia longifolia* B & H (False Ashok Tree), *Plumeria pudica* Jacq.(Nag Champa), *Senna siamea* Lam. Kassod Tree), *Sapindus trifoliatus* L. (Ritha), *Achras sapota* L. (Chiku), *Santalum album* L.(Chandan), *Moringa oleifera* Lamk. (Shewga), *Cocos nucifera* L. (Naral), *Ocimum sanctum* L. (Tulsi), *Nyctanthes arbor-tristis* L. (Parijatak), *Zizyphus jujuba* Lamk.(Bor), *Bougainvillea spectabilis* Willd. (Bougainvel), *Nerium indicum* Mill.(Kanher), *Alstonia scholaris* (L.) R. Br. (Saptaparni), *Lantana camara* L. (Amoni Kamoni), *Thuja (Morpankhi), Zamia, Cycas, Araucaria (Christmas Tree), Catharanthus roseus* (L.) Don. (Sadaphuli)etc.

Botanical Garden

Forest Garden



HEAD
DEPARTMENT OF BOTANY
S.P.H. Arts, Sci. & Comm. College
Nampur, Tal. Baglan (Nasik)

S.P.H. Arts, Sci.& Comm. College Tal.Satana Dist.Nashik Nampur

PRINCIPAL
Samajshree Prashantdada Hiray
Arts, Sci. & Comm. College
Nampur, Tal.Baglan (Nashik)