PRAKRITI SANRAKSHAN
Newsletter
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From the Editor's Desk

April-June 2025 Issue

Dear Readers,

Welcome to another inspiring edition of Prakriti Sanrakshan, where green ideas take root and grow into powerful action!

This month, we're thrilled to share a range of stories that reflect the passion, creativity, and commitment of individuals and communities working towards a healthier planet.

We begin with a touching initiative by Save The Environment (STE) — the launch of 'Ek Ped Maa Ke Naam', a tree plantation drive in Durgapur that honors mothers while nurturing Mother Earth. It's a beautiful reminder that every tree planted is a tribute to love, life, and legacy.

In Kolkata, students from Miraloke have created a thriving Medicinal cum Pollinator Plant Garden, combining education with ecological action. It's proof that the future is in good hands — and they're planting it, one seed at a time.

We also explore the importance of the Botanical Gallery, a national treasure that connects us to our natural heritage. You'll find articles on smart farming powered by AI, and the healing power of bitter foods in managing diabetes — offering a blend of tradition, science, and innovation.

Save the Date!

We're excited to announce STE's upcoming Conference and Workshops, taking place at Jamia Hamdard University from July 28–30, 2025. This three-day event promises to be a celebration of ideas, research, and action — and we warmly invite you to participate and spread the word within your network.

Thank you for being part of our growing community. Your support, involvement, and enthusiasm continue to inspire and drive everything we do.

Let's keep nurturing change — one tree, one idea, one step at a time.

Divya Bhardwaj
Chief Editor

ABOUT US

Save the Environment (STE)

SAVE THE ENVIRONMENT (STE) is the organization that aims to spread awareness to the society about environment, health and water. It was founded and registered on 19th November 1990. STE has collaborated with various organizations in the past 33 years such as All India Institute of Hygiene & Public Health, AIIH&PH and India Canada Environment Facility, DRDO, Ministry of Defence, Department of Science and Technology (DST), Indian Institute of Management (IIM), Ahmedabad to mitigate the effects of arsenic and provide arsenic-free drinking water.

The vision of the society is to protect present and future generations from various Environmental Hazards. The NGO has been actively organizing various interactive sessions such as conferences (National and International), workshops, seminars and awareness programs including poster competitions, quiz competitions, science exhibitions and webinars among the future generations.

HUMBLE APPEAL for CSR FUNDS

To continue your Kind support for clean water supply and sanitation facility project at the STE adopted village Bankanali, Block Puncha, Distt. Purulia

Save The Environment (STE) extends its gratitude and thankfulness for your benevolent support which has made possible the installation of a drinking-cum-wash water unit at the cost of about Rs four and a half lakh (Rs. 4.5 Lakh only) in the first phase of the subject project at STE adopted village Bankanali, Puncha Block, Distt. Purulia, West Bengal. Many households, in dire need of proper water facilities, are somewhat benefitting from the same.



However, a long path remains ahead of us in order to complete the pursuit undertaken. In this endeavour, we plan to provide various water supply units in adjoining areas, rejuvenate and restore the available ponds, create the rain water harvesting systems, reuse of waste water, plantation, Electrification in the village using Solar energy and also to install toilets in the school and other places to be used by people. Looking forward for your kind support to complete the above project.

In this regard, we at STE, earnestly request all the citizens, corporates, life members of STE and patrons to kindly come forward and support for this noble cause. Your generous donation will be a pillar for us and will certainly enable us to bring a smile to several underprivileged persons.

Details of the proposed project are :

ACTIVITIES
Restoration of ponds
Installation of Rain Water Harvesting Systems
Solar Electrification in the Houses and roads
Distribution of drinking water by pipe line in the village
Constructions of toilets in school, houses and other public places and plantation etc.

Looking forward to receiving your generous support.

Contact details:
Phone: 9871372350; 9830779260 Email: info@stenvironment.org
Account details for donating funds:
ONLINE PAYMENT:
Name of the Account: **SAVE THE ENVIRONMENT**
Account Number: **38041963371**
Bank and Branch: **State Bank of India, Lake Town, Kolkata**
IFSC Code: **SBIN0001506** OR
GOOGLE PAY to: **Mrs. Chhanda Basu**; Mobile **9830779260**

Save The Environment (STE) Launches 'Ek Ped Maa Ke Naam' Plantation Drive in Durgapur

On June 5, 2025, World Environment Day, the Kolkata-based NGO Save The Environment (STE) initiated a plantation drive in Durgapur under the national campaign 'Ek Ped Maa Ke Naam' (One Tree in Mother's Name). This initiative aims to improve ecological balance and promote environmental sustainability.

Collaboration with Purv International School:
The drive was launched in collaboration with Purv International School, located on Nachan Road, Kamalpur, Durgapur (West Bengal). The school provided land for the plantation and committed to supporting the initiative's long-term success.

Inaugural Ceremony:
The event commenced in the morning of June 5 at the school premises, with Shri Nirmal Kant Sharmaa as the Chief Guest, Shri Ravindra Narayan Kaul as the Guest of Honour, and Shri Subrata Chattopadhya, Principal & Founder of Purv International School, inaugurating the drive by planting saplings.

Community Participation:

- The event saw enthusiastic participation from members of the public, including teachers and students from Purv International School and several other schools, as well as many children. Together, they planted over 100 saplings of various species. Approximately 60 individuals donated a variety of saplings in honour of their mothers, which were planted in the designated area. The saplings included fruit-bearing and flowering trees, as well as medicinal plants.

Expansion of the Initiative:
Similar plantation activities were carried out at St. Peter's School, West Mirabai Avenue, A-Zone, Durgapur, and at a temple in Faridpur, Durgapur.

Coordination and Contact Information:
The plantation program was coordinated by Mrs. Shubhra Misra, Vice President of STE; Smt. Chanda Basu, Secretary of STE; Shri Sanjit Mitra, Member of the Executive Committee of STE; and other Life Members of STE.

Since the plantation drive is an ongoing activity, those interested in planting saplings or trees under this initiative may contact Dr. (Mrs.) Kshipra Misra, President of STE, via email at
info@stenvironment.org.
https://www.facebook.com/share/p/15RABiwPEK/

Plantation Volunteer & Media

कमलपुर के स्कूल में पौधारोपण अभियान

जागरण संवाददाता, दुर्गापुर : शहर के स्कूल, कालेजों व विभिन्न संस्थाओं में एक पेड़ मां के नाम के तहत पौधारोपण किया गया। कोलकाता के संगठन ने कमलपुर स्थित पूर्व इंटरनेशनल स्कूल में पौधारोपण अभियान शुरू किया। इस पहल का उद्देश्य आने वाले समय में पारिस्थितिकी संतुलन और पर्यावरण की स्थिरता को बेहतर बनाने में मदद करना है।

स्कूल ने पौधारोपण के लिए जमीन उपलब्ध करा दी है। अभियान की शुरुआत निर्मल कांत शर्मा, रवींद्र नारायण कौल और स्विटेलाक व संस्थापक प्रिंसिपल सुव्रत चट्टोपाध्याय ने पौधा लगाकर की। कार्यक्रम के दौरान विभिन्न किस्मों के 100 से अधिक पौधे लगाए गए।

केवि बोलपुर में पौधारोपण : विश्व पर्यावरण दिवस पर केंद्रीय विद्यालय बोलपुर में गुरुवार को 'एक पेड़ मां के नाम' अभियान के तहत पौधारोपण किया गया। प्रभारी प्राचार्य महेश चंद मीना ने छात्रों व अभिभावकों को पौधारोपण के लिए प्रेरित किया। उन्होंने बताया कि इस अभियान के अंतर्गत विद्यालय परिसर में फलदार, छायादार एवं औषधीय पौधों का रोपण किया गया। पर्यावरण सुरक्षा के लिए अधिक से अधिक संख्या में पौधारोपण करके इसकी देखभाल भी करनी चाहिए। मौके पर शिक्षक विप्लव पाल, प्रो बबलू दुबे आदि मौजूद थे।

दुर्गापुर के कमलपुर में पौधारोपण करते संस्था के सदस्य - जागरण

दुर्गापुर के बिधाननगर इलाके में पौधारोपण करते पुलिस अधिकारी - जागरण

पुलिस की ओर से भी पौधारोपण की पहल

जासं, दुर्गापुर : विश्व पर्यावरण दिवस पर दुर्गापुर के विभिन्न इलाकों में पौधारोपण हुआ। न्यू टाउनशिप थाने एवं कोक-ओवेन पुलिस की ओर से पौधारोपण किया गया। मौके पर पौधा वितरण भी किया गया। न्यूटाउनशिप थाने के बिधाननगर पुलिस आउटपोस्ट ने पौधे वितरित किए। मौके पर एसीपी दुर्गापुर शुभोर राय, सीओआइ रणवीर बाग, पंकज सरकार आदि मौजूद थे। कोक ओ थाने में करीब सौ पेड़ लगाए दुर्गापुर ट्रैफिक गार्ड ने स्टेटी इलाके में करीब सौ पेड़ लगाए। अवसर पर एसीपी ट्रैफिक राजकु मालाकार, ओसी ट्रैफिक सं सिविक सुकुल सांगुली समेत ट्रैफ कर्मी मौजूद थे।

GLIMPSES OF
'EK PED MAA KE NAAM'
Plantation Drive in Durgapur on the occasion of World Environment Day



Since the plantation drive is an ongoing activity, those interested in planting saplings or trees under this initiative may contact Dr. (Mrs.) Kshipra Misra, President of STE, via email at info@stenvironment.org. https://www.facebook.com/share/p/15RABiwPEK/

BELDA COLLEGE IN ASSOCIATION WITH NSS, NCC, IQAC & BASUNDHARA ECO CLUB AND SAVE THE ENVIRONMENT CELEBRATED WORLD ENVIRONMENT DAY ON 5TH JUNE 2025

A bicycle rally for sampling distribution, awareness campaign against plastic pollution, stubble burning etc has been done accompanying faculties, staff and students of Belda College. Local communities were made aware of the concerned issues.

Botanical Gallery: An Indispensable Collection for Any National Museum

Saikat Kumar Basu

Museum and Its Significance

A museum is a permanent, non-profit institution that collects, conserves, researches, exhibits, and educates the public about objects of historical, cultural, artistic, or scientific significance. Museums serve as custodians of heritage and knowledge, offering public access to collections for education, enjoyment, and inspiration. A national museum typically operates at the highest level in a country and has broad responsibilities. Its main objectives include:

- **Preservation of National Heritage**: To collect and conserve objects that represent the cultural, historical, and natural heritage of the nation.
- **Education and Research**: To promote public understanding and academic research through exhibitions, publications, and educational programs.
- **Exhibition and Public Access**: To display collections in a way that is accessible and informative to the general public, fostering national identity and pride.
- **Cultural Promotion and National Identity**: To reflect the diversity, history, and values of the nation, and to promote cultural awareness and unity.
- **Documentation and Record Keeping**: To document artifacts and historical events, creating archives and databases for future reference and study.
- **International Collaboration**: To work with other museums and cultural institutions globally for research, exchange of exhibits, and cultural diplomacy.
- **Inspiration and Creativity**: To inspire creativity and appreciation for the arts, sciences, and humanities among visitors of all ages.

Botanical Gallery

A botanical gallery displayed in a public museum is a dedicated exhibition space that showcases plant-related collections and information. It typically includes: preserved plant specimens (like dried leaves, flowers, or seeds), botanical illustrations or scientific drawings, educational displays on plant biology, ecology, evolution, or ethnobotany (how humans use plants), live plants or dioramas simulating natural environments (in some museums), and interactive exhibits explaining plant processes (e.g., photosynthesis or pollination). These galleries aim to educate the public about plant diversity, their ecological importance, and their cultural or medicinal uses. You might find them in natural history museums, science centers, or botanical institutions.

Significance of Botanical Gallery

Having a botanical gallery in a national museum is important for several reasons:

- **Education and Awareness**: It helps educate the public about plant biodiversity, ecosystems, and the crucial role plants play in sustaining life on Earth, including food, medicine, and oxygen production.
- **Cultural and Historical Significance**: Many plants have deep cultural, medicinal, and historical importance. A botanical gallery preserves and showcases this heritage.
- **Conservation Advocacy**: It raises awareness about endangered plant species and promotes conservation efforts, encouraging sustainable practices and respect for the environment.
- **Scientific Research**: Such galleries often support and display scientific research, helping visitors understand plant biology, evolution, and environmental science.
- **Aesthetic and Recreational Value**: Botanical exhibits can be visually stunning and calming, offering a unique space for inspiration, relaxation, and connection with nature.
- **Interdisciplinary Connections**: A botanical gallery bridges art, science, and culture, providing a well-rounded educational experience that enriches the museum's overall value.

A botanical gallery supports the museum's mission to educate, preserve, and inspire through the natural world.

\Botanical Gallery of Indian Museum, Kolkata

The Botanical Gallery of the Indian Museum in Kolkata is a specialized section within the museum's Natural History Division, dedicated to showcasing the rich plant diversity of India. It offers an insightful glimpse into the botanical wealth of the subcontinent through preserved specimens, models, illustrations, and educational exhibits. The Botanical Gallery was initially established in 1901 as the Economic Botany Gallery under the museum's Industrial Section. In 1912, it was brought under the supervision of the Botanical Survey of India and renamed the Botanical Gallery.

The Indian Museum itself was founded earlier, on 2 February 1814, by the Asiatic Society of Bengal, with

Danish botanist Nathaniel Wallich serving as its first curator. The Botanical Gallery is located on the second floor of the Botanical Survey of India building on Sudder Street, accessible from the main museum building. The Botanical Gallery serves both an educational and conservation purpose. It informs visitors about India's biodiversity and the sustainable use of plant resources while promoting awareness about environmental conservation.

Key Features of the Botanical Gallery:

- **Plant Specimens and Models**: The gallery houses a variety of preserved plant specimens, including herbs, shrubs, trees, and climbers. These are often displayed in dried form or as life-like models to help viewers understand their structure and uses. The gallery showcases a wide range of preserved plant specimens, including herbarium sheets, dried plants, fruits, seeds, wood samples, and resins. These represent both common and rare species from different regions of India.
- **Economic Botany**: A major focus is on plants of economic importance. Exhibits include medicinal plants used in traditional Indian systems like Ayurveda, spices and condiments such as cardamom, pepper, and cinnamon, fibres, oils, gums, and dyes derived from plants. Timber and bamboo varieties used in construction and crafts are also well displayed. Exhibits also highlight the economic importance of various plants, such as those used in dyes, fibers, oils, and perfumes. There are detailed displays of plants like cotton, indigo, sandalwood, and tea.
- **Ethnobotany**: Displays highlight how indigenous communities use plants in their daily lives—for food, medicine, rituals, and tools. The gallery explores how indigenous and local communities use plants for medicine, food, tools, and rituals. This includes tribal artifacts and materials derived from plants. This aspect bridges natural science with anthropology.
- **Educational Panels and Charts**: Detailed charts explain plant anatomy, taxonomy, photosynthesis, and the classification of flora. These are designed to educate school and college students about botanical science.
- **Preservation and Documentation**: Many specimens are part of a herbarium collection, catalogued and preserved under scientific protocols. Some rare and endangered plant species are also included.
- **Wood Specimen Collection**: A very noteworthy section contains samples of Indian woods, each labeled with scientific and common names, as well as information on their uses in furniture, construction, and crafts.

Room for Improvements

To further improve the Botanical Gallery of the Indian Museum in Kolkata, a blend of modernization, engagement, and scientific accuracy should be pursued. Here are targeted strategies across several domains:

1. **Exhibit Modernization**
   - **Interactive Displays**: Adding touchscreens and interactive kiosks that explain plant evolution, uses, and conservation.
   - **Augmented Reality (AR)**: Using AR apps to let visitors see animated versions of plant growth or magnified cellular structures.
   - **3D Models**: Replacing or supplementing static displays with realistic 3D printed models of rare or extinct plant species.
2. **Educational Value**
   - **Thematic Zones**: Organizing the gallery into thematic areas—medicinal plants, sacred plants, endangered species, etc.
   - **Multilingual Labels**: Including labels and audio guides in English, Bengali, and Hindi for broader accessibility.
   - **Workshops & Demonstrations**: Offering live sessions on herbal preparation, plant identification, or gardening.
3. **Conservation & Research**
   - **Living Collections**: Incorporating living plants or miniature greenhouse setups for live observation.
   - **Collaborations**: Partnering with the corporate sectors, local schools, colleges and universities, or CSIR institutions to update content and include recent findings.
   - **QR Codes**: Attaching QR codes for each exhibit linking to in-depth online resources or plant databases.
4. **Visitor Engagement**
   - **Children's Activity Zone**: Creating a kid-friendly area with botanical puzzles, games, and drawing stations.
   - **Citizen Science Projects**: Encouraging public participation in local biodiversity mapping or seed bank programs.
   - **Temporary Exhibitions**: Hosting rotating exhibits focusing on regional flora, ethnobotany, or climate

change impacts.

5. **Aesthetic and Spatial Design**

- **Natural Ambience**: Using eco-friendly design—wooden textures, natural lighting, and indoor plants to enhance the botanical feel.
- **Wayfinding & Flow**: Improving layout and signage to guide visitors through a logical and engaging path.

6. **Digital Outreach**

- **Virtual Tours**: Developing a high-quality virtual gallery experience for remote audiences.

Future Directions

The future of the Gallery of the Indian Museum, located in Kolkata and recognized as one of the oldest and largest museums in Asia, could evolve in several key directions based on current global trends in museology and India's cultural priorities. Here are some potential future developments:

1. **Digitization and Virtual Access**

- **Virtual Galleries and 3D Tours**: Enabling remote access to collections for global audiences.
- **Digitally Cataloged Collections**: For preservation, research, and interactive learning.
- **AI-based Curation**: Personalized visitor experiences based on preferences and historical interests.

2. **Modernized Displays and Storytelling**

- **Augmented Reality (AR) & Virtual Reality (VR)**: Bringing historical artifacts to life.
- **Interactive Exhibits**: Allowing users to engage through touchscreens or motion sensors.
- **Narrative-driven Layouts**: Focusing more on stories and cultural context rather than just artifacts.

REPORT ON THE ESTABLISHMENT OF A MEDICINAL CUM POLLINATOR PLANT GARDEN BY THE STUDENTS OF MIRALOKE IN KOLKATA

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Introduction

In an inspiring initiative, the students of the Aspiration Group at Miraloke in New Alipore, South Kolkata, West Bengal, under my guidance and supervision (representing Save the Environment), embarked upon an ambitious project to develop a Medicinal cum Pollinator plant garden within their school campus since the start of 2024. This endeavor aimed to blend environmental education with practical experience, fostering a deeper understanding of local pollinator biodiversity and traditional medicinal practices using indigenous medicinal trees, herbs, and shrubs among the students. According to Principal Partho Sarathi Bose, "Mirraloke, not a school or a coaching center but a learning community based on the thoughts of Sri Aurobindo and The Mother on education." The project was initiated in close collaboration with the technical support and guidance of the West Bengal Chapter, Save the Environment (STE).

Project Initiation and Objectives

The project was conceived as part of the school's commitment to experiential learning and environmental stewardship. Recognizing the educational value of hands-on activities, STE (West Bengal Chapter) proposed the creation of a Medicinal cum Pollinator plant garden to:

1. Enhance students' knowledge of medicinal plants and their uses.
2. Promote conservation of indigenous plant species and local pollinators like bees and butterflies.
3. Integrate practical horticultural skills into the biology curriculum.
4. Encourage responsibility and teamwork among students.

Implementation Strategy

Site Selection and Preparation: A suitable area within the school premises was identified and prepared for cultivation.

Plant Selection: A diverse range of medicinal plants, including different species of Tulsi (*Ocimum sanctum*, *Ocimum basilicum*, and *Ocimum americanum*), Neem (*Azadirachta indica*), Ashwagandha (*Withania somnifera*), Sarpagandha (*Rauvolfia serpentina*), Madagascar periwinkle (*Catharanthus roseus*), Aloe vera, Oxalis corniculata, *Holarrhena pubescens*, *Euphorbia hirta*, *Amaranthus spinosus*, *Tridax procumbens*, *Phyllanthus niruri*, *Rhoeo discolor*, *Tecoma stans*, *Alternanthera sessilis*, *Cynodon dactylon*, *Mirabilis jalapa*, *Clitoria ternatea*, Asparagus, Brahmi (*Bacopa monnieri*), *Tinospora cordifolia*, *Adhatoda vasica*, *Euphorbia milii*, *Euphorbia tirucalli*, *Muehlenbeckia platyclada*, jasmine, night jasmine, crape jasmine, red and white sandalwood, flame of the forest, camel's foot tree, tamarind, mango, jackfruit, guava, different cultivars of succulents and cactus, roses, Hibiscus, morning glories, passionflowers, Bougainvillea, ginger, onion, turmeric, garlic, ajwain, millets, chili, eggplant, fenugreek, Ixora, Bryophyllum (*Kalanchoe*), lilies, petunias, tulips, cockscombs, cumin, fennel, flax, black and white mustard, marigolds, annual and perennial sunflowers, purple bleeding heart, Cycas, *Zamia*, *Pteris vittata*, and several local aquatic plants were selected for their therapeutic properties and adaptability to the local climate; and also for attracting local pollinators like bees, butterflies, moths, beetles, wasps, ants, and birds.

Student Involvement: Students participated actively in all stages—soil preparation, planting, labeling, and maintenance—fostering a sense of ownership and responsibility.

Educational Integration: The garden served as a living laboratory, with lessons on plant biology, ecology, and traditional medicine conducted on-site to reinforce theoretical knowledge through practical application.

Outcomes and Impact

The medicinal cum pollinator plant garden has yielded significant educational and environmental benefits:

- **Enhanced Learning:** Students gained firsthand experience in plant cultivation and an appreciation for the role of medicinal plants in healthcare.
- **Environmental Awareness:** The project heightened awareness of the importance of pollinator biodiversity conservation and sustainable practices among the school community.
- **Community Engagement:** The garden became a resource for local residents, who could learn about and access medicinal plants for traditional remedies.

Significance

Establishing pollinator and medicinal plant gardens holds significant ecological, health, and educational value. Here's why they're important:

1. **Biodiversity Conservation:** Pollinators (like bees, butterflies, and birds) are vital for the reproduction of about 85% of all flowering plants and crops. These gardens can support pollinator populations by providing food and habitat. Medicinal plants preserve plant diversity, especially species with traditional or pharmacological value that may be endangered.
2. **Environmental Benefits:** Improves soil health, reduces erosion, and helps in carbon sequestration. Contributes to urban greening, improving air quality and reducing the urban heat island effect.
3. **Health and Wellbeing:** Medicinal plants offer natural remedies and are sources for many modern drugs. Access to these gardens encourages holistic health practices and traditional knowledge.
4. **Educational and Research Value:** Serves as learning centers for students, researchers, and communities about plant biology, ecology, and ethnobotany. Promotes awareness about the importance of sustainable agriculture and conservation.
5. **Food Security:** Healthy pollinator populations directly influence crop yields and food production. Some medicinal plants also serve as nutraceuticals (food with health benefits).
6. **Cultural Preservation:** Helps preserve indigenous knowledge systems and traditional medicine practices, often passed down through generations.

The successful establishment of the Medicinal cum Pollinator plant garden at Miraloke under the banner of STE exemplifies the effectiveness of experiential learning in promoting environmental education and community involvement. The collaborative effort between students and STE as an organization not only enriched the academic curriculum but also instilled values of sustainability and respect for traditional knowledge systems.

In close collaboration with other local NGOs like Howrah Suparna (HS), Union Religions Initiative (URI), and the Science Association of Bengal (SAB), STE (West Bengal Chapter) is planning to establish more such gardens in schools and colleges across North and South Parganas, Howrah, Hooghly, Nadia, East and West Burdwan, Birbhum, Bankura, Purulia, East and West Midnapore, and Jhargram districts of West Bengal. In future, such projects are also being planned for the adjoining states of Odisha and Jharkhand.

Photo credit: Saikat Kumar Basu

पेड़ का कर्ज़ –

कुंतालपुर का राजा बड़ा ही न्याय प्रिय था। वह अपनी प्रजा के दुख–दर्द में बराबर काम आता था। प्रजा भी उसका बहुत आदर करती थी। एक दिन राजा गुप्त वेष में अपने राज्य में घूमने निकला तब रास्ते में देखता है कि एक वृद्ध एक छोटा सा पौधा रोप रहा है।

राजा कौतूहलवश उसके पास गया और बोला, ''यह आप किस चीज का पौधा लगा रहे हैं ?'' वृद्ध ने धीमें स्वर में कहा, ''आम का''।

राजा ने हिसाब लगाया कि उसके बड़े होने और उस पर फल आने में कितना समय लगेगा। हिसाब लगाकर उसने अचरज से वृद्ध की ओर देखा और कहा, ''सुनो दादा इस पौधे के बड़े होने और उस पर फल आने मे कई साल लग जाएंगे, तब तक तुम क्या जीवित रहोगे?'' वृद्ध ने राजा की ओर देखाद्य राजा की आँखों में मायूसी थी । उसे लग रहा था कि वह वृद्ध ऐसा काम कर रहा है, जिसका फल उसे नहीं मिलेगा।

यह देखकर वृद्ध ने कहा, ''आप सोच रहें होंगे कि मैं पागलपन का काम कर रहा हूँ। जिस चीज से आदमी को फायदा नहीं पहुँचता, उस पर मेहनत करना बेकार है, लेकिन यह भी तो सोचिए कि इस बूढ़े ने दूसरों की मेहनत का कितना फायदा उठाया है ? दूसरों के लगाए पेड़ों के कितने फल अपनी जिंदगी में खाए हैं ? क्या उस कर्ज को उतारने के लिए मुझे कुछ नहीं करना चाहिए? क्या मुझे इस भावना से पेड़ नहीं लगाने चाहिए कि उनके फल दूसरे लोग खा सकें? जो केवल अपने लाभ के लिए ही काम करता है, वह तो स्वार्थी वृत्ति का मनुष्य होता है।''

वृद्ध की यह दलील सुनकर राजा प्रसन्न हो गया , आज उसे भी कुछ बड़ा सीखने को मिला था।

स्रोत – इंटरनेट

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SMART FARMING with AI

Divya Bhardwaj

Chief Editor STE

Information sourced from publicly available on internet.

Artificial Intelligence (AI) is revolutionizing agriculture by addressing challenges like food shortages and enhancing productivity. AI applications, particularly in soil and weed management, help farmers optimize resources, improve crop yields, and reduce environmental impact. AI tools analyze real-time data from various sources like weather, soil conditions, and water usage to provide actionable insights on irrigation, pest control, and planting schedules.

AI-powered robots and machines are increasingly used for tasks like harvesting and weeding, significantly reducing labor costs and increasing efficiency. These robots can work faster and with greater accuracy than humans, ensuring high-quality crops and minimizing waste. Additionally, AI-based tools like the Plantix app help farmers monitor soil health and detect pests or diseases, offering tailored recommendations for fertilizers and treatment.

Unmanned aerial vehicles (UAVs) or drones equipped with AI technology are also transforming crop management by providing detailed images of fields, helping farmers identify pest infestations or diseases early. Moreover, AI-based predictive tools help farmers determine the best time to plant seeds based on weather patterns and soil health.

Despite the potential, the widespread adoption of AI faces challenges such as uneven mechanization access, data processing limitations, and privacy concerns. Nevertheless, as technology evolves, AI is poised to make agriculture more sustainable, efficient, and capable of meeting the demands of a growing global population. With continuous advancements, AI will play a crucial role in shaping the future of farming.

THE POWER OF BITTER FOODS: A NATURAL APPROACH TO MANAGING DIABETES

Divya Bhardwaj
Chief Editor STE
Information sourced from publicly available on internet.

Bitter foods, often overlooked for their strong taste, can offer significant health benefits, particularly for individuals managing diabetes. Despite their less-than-appealing flavor, foods like bitter gourd (karela), black coffee, and black tea are packed with bioactive compounds and nutrients that support overall health and can help regulate blood sugar levels. This article explores the positive impact of bitter foods on diabetes management and their associated health benefits.

Bitter Foods and Their Impact on Diabetes:
Bitter foods, especially bitter gourd, have been found to play a crucial role in controlling blood sugar levels, making them an effective addition to a diabetic diet. Bitter gourd contains a natural compound known as plant insulin, which mimics the action of human insulin. This compound helps lower blood and urine glucose levels, contributing to improved glycemic control. Furthermore, bitter gourd stimulates the liver to produce bile, which aids in fat breakdown and the absorption of fat-soluble vitamins, enhancing digestion and metabolism.

Research has shown that bitter gourd is not only effective in regulating blood glucose but also has other therapeutic properties. It has demonstrated anti-cholesterol, anti-inflammatory, anti-cancer, anti-bacterial, and anti-fungal activities. The bioactive compounds found in bitter gourd, including phenolic compounds, carotenoids, cucurbitane, triterpenoids, phytosterols, and alkaloids, are responsible for its bitter taste and beneficial effects. These compounds work synergistically to help lower blood sugar levels and promote overall health.

The Benefits of Black Tea and Coffee:
In addition to bitter gourd, other bitter foods like black coffee and black tea also offer several health benefits, particularly for individuals with diabetes. Both beverages are rich in flavonoids, phenolic acids, and alkaloids, which are secondary metabolites that have antioxidant and anti-inflammatory properties. These compounds play a significant role in blood sugar regulation, improving insulin sensitivity, and reducing inflammation associated with diabetes.

Black tea and coffee can also aid in digestion and promote better liver function. The addition of lemon to these drinks further enhances their digestive benefits and supports gall bladder function. Moreover, coffee is a rich source of essential nutrients such as riboflavin, niacin, magnesium, and potassium, all of which contribute to heart health, mood regulation, and overall well-being. Consuming black coffee and tea regularly has also been associated with a reduced risk of chronic conditions, including cancer, liver cirrhosis, and Parkinson's disease.

Incorporating Bitter Foods for Better Health:
The inclusion of bitter foods like bitter gourd, black coffee, and black tea into a balanced diet can provide a natural approach to managing diabetes. These foods, rich in bioactive compounds, help regulate blood sugar levels, support digestion, and improve liver function. However, their effectiveness is maximized when combined with other lifestyle changes such as regular physical activity, a balanced diet, and stress management.

The consumption of bitter foods should be seen as part of a holistic approach to health. Regular exercise and maintaining a healthy weight are essential for controlling blood sugar levels. Additionally, incorporating other natural remedies such as fiber-rich foods, healthy fats, and adequate hydration can further support diabetes management.

Conclusion:
While the bitterness of certain foods may be unappealing to some, their health benefits, particularly in the management of diabetes, cannot be overlooked. Bitter gourd, black coffee, and black tea contain powerful bioactive compounds that help regulate blood sugar levels, improve digestion, and promote overall health. When combined with a healthy lifestyle, these foods can be an effective and natural strategy for managing diabetes. Embracing the bitterness may, in fact, be a "golden" step toward better health and well-being.

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