

# KATWA COLLEGE

## Key Indicator - 7.2 Best Practices For the Session 2020 - 2021

### ***Best Practice -1***

#### **1. Title: MEDICINAL PLANT GARDEN (CHARAK UDYAN)**

The College has established a medicinal plant garden named as Charak Udyan of 60'×30' area with medicinal and aromatic plants, many of which are highly valuable, for both preservative and educational purposes.

#### **2. Objectives of the Charak Udyan:**

For conserving the valuable medicinal and aromatic plants this garden will act as a germplasm stock for the local people.

To make people conscious about the importance of these medicinal and aromatic plants in the context of national as well as global market.

#### **3. The Context:**

The medicinal plant garden (Charak Udyan) of 60'×30'area is established, looked after and maintained by the institution by means of regular tilling, manuring and watering.

Various medicinal and aromatic plants of high value and demand in the present global as well as local market are collected from different sources and planted in the Charak Udyan.

Seeds or propagules of selected medicinal and aromatic plants which are being used in various herbal formulations and have a high market value were also collected from various sources. Plants were cultivated for their propagation and maintenance.

#### **4. The Practice:** This garden serves as a repository of various species of important medicinal and aromatic plants and also serves to inform and educate the students, employees and other visitors about the importance and value of these species and also their specific uses. The garden ensures that the campus of the institution is environment-friendly and is truly a green campus. By educating students and visitors about the value and usage of these plants, it also

serves to inspire and motivate them to grow at least some of the plants in their own residential areas. Thus, the garden also serves as a motivational model in this regard and the establishment as well as the regular upkeep and maintenance of this Charak Udyan can be considered as a best practice of Katwa College.

**5. Evidence of Success:** The plants cultivated in the “Charak Udyan” are listed along with their uses, the part of the plant used and active principles.

Sl.no	Scientific Name	Bengali/	English name	Family	Parts used	Active Principle	Uses
		Hindi					
1	<i>Tylophora indica</i>	Antamul	Indian Ipecacuanha	Asclepiadaceae	leaf	Alkaloids	Anti-asthmatic
2	<i>Gymnema sylvestre</i>	Gurmaar	Australian cow plant	Asclepiadaceae	leaf	Gymnemic acid	Antidiabetic
3	<i>Aloe vera</i>	Ghrita kumari	Indian Aloe	Liliaceae	leaf	Aloin	Purgative and cosmetic use
4	<i>Santalum album L</i>	Chandana	White sandal wood	Santalaceae	Wood	Volatile oil	Antibacterial, Coolant
5	<i>Catharanthus roseus L</i>	Nayantara	Periwinkle	Apocynaceae	Whole plant	Alkaloids	Anticancer Antidiabetic
6	<i>Cymbopogon citratus</i>	Ganghaben a	Lemongrass	Poaceae	Leaf	Volatile oil	Antibacterial Stimulant
7	<i>Juniperus communis L</i>	Havusha	Common juniper	Cupressaceae	Fruit	Volatile oil	Dyspepsia Diuratic
8	<i>Jatropha curcas L</i>	Bagvarenda	Physic nut	Euphorbiaceae	Seed	Oil	Biofule
9	<i>Cinnamomum camphora L</i>	Karpur	Camphore tree	Lauraceae	Camphore (deposits in the oil cells)	Contains volatile oil comprising camphor, safrole, linalool, eugenol & terpeneol.	Catarrhal disease of the respiratory and muscular rheumatism .
10	<i>Zamia angustifolia</i>	Zamia	Zamia	Cycadaceae	Leaf	Laves contain bilobetin ginkgetin etc.	For cerebral insufficiency and for improving mental performance

11	<i>Cycus circinalis</i>	Cycus	Fern palm	Cycadaceae	Exudates of the stem	Gum disintrigated products of sugars.	As adhesives, pain, candy industry and as drug.
12	<i>Lawsonia inermis</i>	Mehendi	Henna	Lythraceae	Leaf	Leaves contain napthoquinones lawsome, cumarins.	As hair conditioner, for treatment of hand & feet for mycosis.
13	<i>Elaeocarpus ganitrus</i>	Rudraksha	Utrاسum bed tree	Elaeocarpaceae	Fruits	Palmitic acid, Alkaloid-rudakine, elacocarpin, quercetin, gallic acid, ellagic acid etc.	Used for disease of the head and epileptic fit.(it conveys electro magnetic influences).
14	<i>Andrographis paniculata</i>	Kalmegh	Creat	Acanthaceae	Whole plant	Andrographolides	Jaundice, hepatoprotectant, antiviral.
15	<i>Rauvolfia serpentina</i>	Sarpagandha	Indian snake wood	Apocynaceae	Root	Alkaloids	Hypotensive
16	<i>Thuja orientalis L</i>	Thuja	Thuja	Cupressaceae	Leaf	Volatile oil	Used in Homoeopathy for tissue degradation.
17	<i>Bacopa monnieri L</i>	Brahmi	Gratiola	Scrophulariaceae	Whole plant	Alkaloids, Bacosides	Brain tonic
18	<i>Centella asiatica</i>	Thankuni	Asiatic pennywort	Apiaceae	Leaf	Asiaticasoides	Memory tonic, Sedative
19	<i>Hemidesmus indicus</i>	Anantamul	Indian sarsaparilla	Asclepiadaceae	Root	Saponins	Antiseptic, Blood purifier.
20	<i>Strychnos nux-vomika</i>	Kuchila	Nux-vomika	Loganiaceae	Seed	Alkaloids	C.N.S stimulator.
21	<i>Withania somnifera L</i>	Ashwagandha	Winter cherry	Solanaceae	Root	Alkaloids	Immunomodulator, Antioxidant.
22	<i>Emblica officinalis L</i>	Aamlaki	Indian gooseberry	Euphorbiaceae	Fruits	Vit-C, Tannins, Ellagic acid.	Antioxidant, Source of Vit-C.
23	<i>Ocimum tenuiflorum L</i>	Krishna tulsi	Holy basil	Lamiaceae	Leaf	Volatile oil, Tannins, Ursolic acid	Immunomodulator, Expectorant.

24	<i>Azadirachta indica</i>	Neem	Margosa tree	Meliaceae	Leaf, Bark	Nimbidin, Azadirectin, Triterpen	Antiseptic, Blood purifier.
25	<i>Mentha spicata</i>	Pudina	Spearmint / Garden mint	Lamiaceae	Leaf, Whole plant.	Essential oil- Carvone, limonene, rosmarinic acid etc.	Stimulant, Carminative.

- 6. Problems Encountered and Resources Required:** During pandemic lock down period is not maintained the Charak Udyan properly. Two cyclones are also damaged in the garden. The College authority is trying to solve the hard conditions.

## **Best Practices No 2:**

### **1. Title of the Practice Holistic growth of education**

**Goals:** To prepare the students for a better future thereby providing infrastructure for academic, social and entrepreneurial expertise.

### **2. Objectives of the Practice** Objectives: To comprehensively enhance academic excellence among the students thus providing them adequate exposure

- ❖ To foster empathy and team work among students that would help them being a responsible individual.
- ❖ To develop the entrepreneurial expertise among students and help them in their future endeavors.

### **3. The Context :** Any institution can attain excellence only if and when it works at an all round development of students. Katwa College is working relentlessly to achieve excellence not just in terms of academics, but also through its involvement in making its students educated empathetic entrepreneurs for the future. The IQAC worked on a blueprint to coalesce the academic, social and outreach programs of the college under one umbrella to achieve a holistic development of the students. The students in the college are from various sections of society with various cultural and social

backgrounds. They have differential capabilities and talents that have to be developed and nurtured. With the idea of imparting to the students a holistic experience focused on understanding (and demonstrating) values, nurturing skills, and moving towards knowledge, the college tried to implement a structural alteration thereby fusing values with practices and skills with knowledge.

4. **The Practice:** To ensure an overall development of students, the institution took up three bases for student's development:

**A. Academic Development:**

The English departments of the college has been organizing lecture series that ensures an excellent academic environment and proper exposure to the talented youths. Also, the Sanskrit and Bengali department organizes monthly departmental seminars by the students with an aim to prepare them for their future. Almost all the departments work towards providing basic computer education to students in order to assist them in the E-learning education system. The Bengali and Geography departments of the college publish wall magazines prepared by the students and thus ensure that every academic talent is appreciated and given space for expression. The remedial classes are taken up by departments to benefits low learners and students are prepared for the competitive world in all these ways. Also, the college celebrates the science day every year where school and college students are invited from the neighborhood to demonstrate their science skills and thus a talent mixing is performed every year.

**B. Social Development:** To have a sound and conscious future generation, an institution should focus not only on learning, but also towards social responsibility. Katwa College takes up this work very seriously and pledges towards community sustainability in every respect. The NSS and NCC wings of the college take the lead in conducting various community development programs that aim towards making students socially responsible citizens for the present and future. The Bano Mahotsav is celebrated each year with a mission to ensure a green campus. A blood donation camp is organized by our NSS wings as part of the social commitment of the institution. The college practices all such measures to assure community

participation and responsible social development.

**C. Innovation and Entrepreneurial Development:** Katwa College took up the initiative to go beyond the traditional teaching-learning process to pave the way towards the future for its students. To attain this, the college took up several innovation practices that encourage entrepreneurial endeavours among its students. The college established Institution Innovation Council (IIC) during 2018 under MHRD and started working on the innovation and entrepreneurial projects/ ideas to be taken up. In 2019-20, the college participated in innovation contest whereby it submitted thirty five (35) ideas, Twenty one (21) POC, Eight (8) prototypes. Among these, five (5) prototypes were selected for the next level.

**The Evaluation:** The IQAC makes appropriate interventions for further deliberation, if and when required, for continuous improvement of the various practices and procedures taken up for holistic development and quality improvement of the students. There are plans for further enhancement of the programs in near future.

5. **Evidence of Success** - The academic programs are systematically documented by both the IQAC and the departmental heads. The data compilation incase of social works are well maintained not only by the departments, but also by the NSS, NCC team. The results of the students in their final examination is better than earlier years.
6. **Problems Encountered and Resources Required-** Katwa College being located in a semi-urban backward area often faces the problem of lack of exposure for the students who, though perform diligently, but because of various factors do not enjoy many of the opportunities for exposure available in metro cities. These problems have to be overcome and the institution tried to equip out students to overcome hurdles and fulfill their potential.