

भैषज संदेश

# BHAISHAJ SANDESH



**Newsletter Published By Columbia Institute of Pharmacy, Raipur, (C.G.), India**

NBA Accredited UG Programme (B. Pharm.)

CPCSEA (New Delhi) approved lab for breeding & experimentation of small animals

DST-FIST, GOI sponsored PG Programme

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## Message from Editor's Desk

Welcome to all the readers.....

We are very happy to introduce volume VI of 12<sup>th</sup> edition of our bimonthly newsletter. As we all know, a newsletter mirrors a college- its vision and mission. It also highlights the event, activities, academic progress and achievements of students. Contribution of teachers and other crucial information related to Pharmacy field are also incorporated in it. In this edition, we have tried to capture the last two months activities. I do hope that the newsletter encourages many more including students to use it as a platform to express their creativity. Please feel free to offer any suggestion for improvement.

**Sincerely**

**Dr. Ravindra Kumar Pandey**

## Editorial Board

1. Dr. Ravindra Kumar Pandey  
Professor, CIP, Raipur
2. Dr. Disha Kesharwani  
Assistant Professor, CIP
3. Mr. Gunjan Kalyani  
Assistant Professor, CIP
4. Ms. Suman Sen  
B. Pharm 8<sup>th</sup> Sem

## **Columbia Institute of Pharmacy**

It is a great pleasure to introduce Columbia Institute of Pharmacy, a name synonymous with excellence in pharmacy education in the state of Chhattisgarh. Columbia Institute of Pharmacy, Raipur, is run and managed by Jan Pragati Education Society (JPES), established in 2003. Innovation, excellence, and quality are the driving forces behind the vision of the Columbia Institute of Pharmacy, which boasts a proud heritage of academic achievements. The campus is lavishly spread over acres of lush green land, located just 14 km away from the hustle and bustle of the city and 4 km from the Chhattisgarh State Assembly, offering an environment conducive to learning and growth. The institute continues to make relentless efforts to add value to pharmacy, engineering, and management education.



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### 23<sup>rd</sup> Foundation Day Celebration 2025

Columbia Group of Institutions celebrated the 23rd Foundation Day of Jan Pragati Education Society with great enthusiasm. The occasion marked 22 years of remarkable achievements and inspired a renewed commitment toward future goals. The programme began with lamp lighting and Saraswati Vandana, followed by the joint inauguration by Param Pujya Guruji Dr. Uma Shankar Sharma, founder member Chairman Shri Kishore Jadwani, Secretary Shri Harjeet Singh Hura, Treasurer Shri Ravindra Singh Hura, and the principals of various institutes of the group. Dr. Uma Shankar Sharma emphasized the importance of health and the principles of "Breath, Time, and Discipline," while expressing gratitude for the dedication that has earned Columbia a distinguished identity nationwide.

Chairman Shri Kishore Jadwani and Secretary Shri Harjeet Singh Hura appreciated the efforts of all staff and highlighted the journey, challenges, and achievements of JPES. They announced that Columbia is expected to receive university status next year and stressed the need to build an equally strong identity for Columbia Professional University. Treasurer Shri Ravindra Singh Hura outlined the group's challenges and future plans.

Outstanding teaching and non-teaching staff were honoured, including recipients of the 10 Years Awards for a decade of dedicated service. Various games were organised for staff members, and winners were felicitated. The event concluded successfully with the support and presence of all principals, HoDs, teaching, and non-teaching staff. **Mr. Gunjan Kalyani** was felicitated by the "Excellence Award for Teaching 2025" and in non-teaching section **Mr. Dashru Ram** received the award for "Best Performance 2025".



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## National Pharmacy Week Celebration 2025

The 64th National Pharmacy Week (NPW) was celebrated with great enthusiasm at Columbia Institute of Pharmacy Raipur, under the theme “Pharmacists as Advocates of Vaccination”. The event aimed to highlight the vital role of pharmacists in ensuring safe vaccination while promoting awareness about their contributions to public health. The three day celebration included a series of academic, cultural, and awareness-based activities. The inaugural ceremony was graced by Prof Shiv Shankar Shukla Sir and Prof Trilochan Satpathy Sir along with faculty members, and students. Prof Shiv Shankar Shukla Sir, Head, Department of Pharmaceutical Quality Assurance gave a detailed presentation on NPW 2025 highlighting the theme, aim and objectives. Also discussed in detail IPA, its role in NPW and specifically about the role of Pharmacist in Vaccination. Prof Trilochan Satpathy Sir, HOD, Pharmacology, also addressed the gathering and primary focus was on the role of Pharmacist in vaccination. Interactive sessions were also held at the end of lecture. The celebration includes Rangoli, Mehendi competitions, Best out of Waste, Extempore and Quiz will be conducted to encourage student participation and showcase their knowledge and creativity. An awareness rally will be organized on 22/11/25 in nearby Village. Also, there will be best out of waste and Medicinal Garden Decoration competition. All the three days were dedicated to creativity, confidence, and knowledge, showcasing the multifaceted talents of pharmacy students beyond academics. The events helped students showcase their talents beyond the classroom, promoted healthy competition, and strengthened the spirit of togetherness.



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## Students' Achievements



**Ms. Shashi Sen**  
**B.Pharm 4<sup>th</sup> Sem,**  
**82.5%**



**Ms. Heenal Agrawal**  
**B.Pharm 2<sup>nd</sup> Sem,**  
**84.37%**

- **NSS Volunteer “Ms. Rameshwari Sahu”,** student of B.Pharm, 5<sup>th</sup> Sem and NSS Volunteer of Unit, Columbia Institute of Pharmacy, was selected for National Integration Camp from CSVTU and represented Team Chhattisgarh. The NIC was held at Sardar Patel University, Gujarat from Nov 22-28, 2025. The National Integration Camp (NIC) is organized every year and the duration of each camp is of 7 days.



- **Student of B. Pharm 5<sup>th</sup> Sem Mr. Rudra Pratap Yadav,** successfully participated in 1 DAPT Hub Foundation IIT(BHU) sponsored Five Days Hands on Short-Term-Course on “Transforming Healthcare with AI Driven Drug Discovery” on December 5-9, 2025, organized by Department of Pharmaceutical Engineering & Technology, Indian Institute of Technology (BHU), Varanasi, U.P.”



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## Campus News

Columbia Institute of Pharmacy, Raipur, arranges campus interviews for the B. Pharm final year students. We are happy to share that our one of the student “**Mr. Vinod Bande**” is selected in LA Renon Healthcare on the position of Medical Representative.

## Openings of Seminars/Conferences/Workshops

S. No.	Funding Agency	Website	Apply Duration
1.	Council for Scientific and Industrial Research (CSIR)	CSIR-HRDG: Symposium Grants	Round the year
2.	Atomic Energy regulatory Board (AERB)	<a href="https://www.aerb.gov.in/english/funding-for-seminars">https://www.aerb.gov.in/english/funding-for-seminars</a>	Round the year
3.	National Medicinal Plant Board (NMPB)	<a href="https://nmpb.nic.in/content/schemesproposals">https://nmpb.nic.in/content/schemesproposals</a>	Round the year
4.	Department of Atomic Energy	<a href="https://nbhm.dae.gov.in/conferences.html">https://nbhm.dae.gov.in/conferences.html</a>	Round the year

## Inspiring Quotes

1. There are no shortcuts to any place worth going.
2. Failure is the opportunity to begin again more intelligently.
3. Push yourself, because no one else is going to do it for you.
4. The secret of success is to do the common things uncommonly well.
5. The way to get started is to quit talking and begin doing.

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## NSS Activities

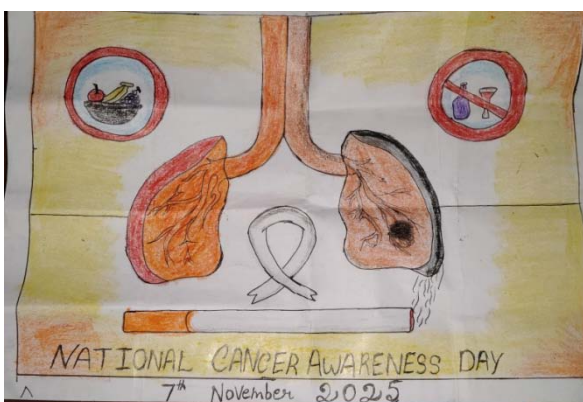
**Central Vigilance Commission (CVC) Pledge**  
Central Vigilance Commission (CVC) Pledge 2025 was taken on 03.11.2025 to promote integrity and combat corruption in public governance, encouraging citizens and officials to commit to ethical conduct. The CVC Pledge is part of the efforts to enhance transparency and accountability in governance. It is typically administered during events like Vigilance Awareness Week, which is observed annually to raise awareness about the importance of vigilance and integrity in public service.



**Eye Check Up Camp**  
An Eye Check Up Camp was organized on 04.11.25. Regular eye checkups are essential for maintaining good vision and overall eye health.



**National Cancer Awareness Day**  
National Cancer Awareness Day is observed on 7.11.2025 each year to promote awareness about cancer prevention, early detection, and treatment options. Significance and History National Cancer Awareness Day was first announced by Dr. Harsh Vardhan.



**National Education Day**  
National Education Day 2025 was celebrated on 11.11.2025, to honor the birth anniversary of Maulana Abul Kalam Azad, India's first Education Minister. This day recognizes his significant contributions to the education system in India. The theme for 2025 is "AI and Education: Preserving Human Agency in a World of Automation", emphasizing the importance of inclusive and future-ready learning. Speech, Nukkad Natak, Rally and Poster competitions were organized.



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### AIDS DAY

The theme for World AIDS Day 2025 is "Overcoming disruption, transforming the AIDS response." This theme emphasizes the need for sustained political leadership, international cooperation, and human-rights-centered approaches to effectively end AIDS by 2030.



### Human Rights Day

Human Rights Day (HRD) is celebrated annually around the world on 10 December. The date was chosen to honor the United Nations General Assembly's adoption and proclamation, on 10 December 1948, of the Universal Declaration of Human Rights (UDHR), the first global enunciation of human rights and one of the first major achievements of the new United Nations.



## Causerie

### Implication of Artificial Intelligence (AI) in Plant Conservation

Artificial intelligence (AI) has instigated a plethora of changes and innovations in many industries worldwide in recent years. Organizations across sectors like healthcare, finance, tech, and many others are constantly seeking ways in which they can leverage the power of AI to help boost employee productivity, operational efficiency and accuracy, and reap numerous other benefits. Another field that has seen demonstrable advantages as a result of integrating AI into its fabric is Plant conservation. AI has significant potential to advance conservation efforts and solve some of the sector's most prominent and pervasive challenges. With AI applications in conservation on the rise, organizations can expect to gain more accurate and valuable insights, improve the effectiveness and speed of actions that combat environmental destruction, and ultimately, ensure that animals, humans and their habitats are able to coexist harmoniously. Much like how businesses are pivotal in helping the fight against climate change, their utilization of AI can also prove similarly effective if they are actively involved in conservation.

#### Mr. Gunjan Kalyani

Assistant Professor  
Columbia Institute of Pharmacy,  
Raipur, Chhattisgarh, India

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## ACHIEVEMENTS

### Paper Publications

1. Dr. Shiv Shankar Shukla published a review paper entitled “Chemistry, Biological Properties and Analytical Methods for Estimation of Probenecid: An Updated Review”, in “Technische Sicherheit”, under Bentham Science publishers 25(12), 2025, Dr. Bina Gidwani, Ms. Shilpa Sahu, and Ms. Jyoti Verma.
2. Dr. Trilochan Satapathy published a paper entitled “Synergistic Amelioration of Imidacloprid Induced Infertility by Vitex Agnus castus & Nigella sativa in Female Rats: Mechanistic Evidence of Hormonal & Reproductive Restoration” in “Cell Biochemistry & Biophysics”, under Springer Publishers, 2025, along with Ms. Poonam Sahu & Ms. Darshana Rathi.
3. Dr. Trilochan Satapathy published a paper entitled “Natural modulators of NF- $\kappa$ B, cytokine, and oxidative stress signaling in coronary artery inflammation” in “Next Research”, under Elsevier publication house, 2, 2025, along with Ms. Anjali Minj.
4. Dr. Bina Gidwani, published a review paper entitled “Nanotheranostics: emerging nanomachines as pharmacotherapeutics” in “3 Biotech” under Springer Publishers, 15:442, 2025, along with Varsha Sahu, Kamal Shah, Nagendra Singh Chauhan, Mohammad N. Alomary, Mohammad Azam Ansari, and Santosh Anand.
5. Dr. Bina Gidwani, published a review paper entitled “Multi-Component Analysis by Chemometric Techniques: Advances and Applications for Solid Dosage Form” in “Combinational Chemistry & High Throughput Screening” under Bentham Science publishers 2025, along with Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla, and Ms. Shilpa Sahu.
6. Dr. Bina Gidwani published a research paper entitled “Preparation, Optimization, and Characterization of Transdermal Patches Containing Aqueous Extract of Cissus quadrangularis and Ginger officinalis”, in “Current Nutrition & Food Science”, under Bentham Science, publishers 21(8), 2025, Dr. Ravindra Kumar Pandey, Dr. Shiv Shankar Shukla, Dr. Neha Dubey, and Mr. Sagar Sahu.
7. Dr. Bina Gidwani published a review paper entitled “Novel Insights into Piperazine- Oxadiazole Hybrids: Promising Pathway for Antidepressant Development”, in “Journal of Heterocyclic Chemistry”, under Wiley publishers 62, 2025, Dr. Shiv Shankar Shukla, Mr. Rahul Goswami and Ms Shailee Kesharwani.
8. Dr. Shashikant Chandrakar published a paper entitled “Development and Evaluation of Antifungal Activity of Carbopol and Neem Seed Oil Based Organogels” in Anti-Inflammatory & Anti-Allergy Agents in Medicinal Chemistry” under Bentham Science publishers, 2025 along with Dr. Bina Gidwani, Dr. Pushpa Prasad Gupta and Mr. Piyush Jain.
9. Dr. Shashikant Chandrakar published a paper entitled “Tea Tree Oil-Based Sertaconazole Nitrate Organogels: Optimized Topical Delivery for Enhanced Antifungal Efficacy”, in “Drug Delivery Letters”, 15, 2025, along with Dr. Ravindra Kumar Pandey, Dr. Pushpa Prasad Gupta and Piyush Jain.
10. Dr. Shashikant Chandrakar published a research paper entitled “Optimizing a Natural Oil-Based Sertaconazole Nitrate Organogel: Enhanced Antifungal Activity through In-Vitro and In-Vivo Evaluation” in Journal of Pharmacopuncture, 28(4), 2025 along with Dr. Ravindra Kumar Pandey, Dr. Bina Gidwani, Dr. Pushpa Prasad Gupta and Piyush Jain.
11. Ms. Poonam Sahu published a review paper entitled “Mitochondrial Derived Peptides (MDPs) as Emerging Gero Protectors: Molecular Signaling, Systemic Effects, and Translational Perspectives” in International Journal of Peptide Research & Therapeutics, under Springer Publishers, 2026, 32:14, along with Dr. Trilochan Satapathy, Mr. Abinash Satapathy & Mr. Abhishek Satapathy.
12. Mr. Shiv Kumar Bhardwaj published a review paper entitled “A Systematic Review on Hepatoprotective Medicinal Plants, Their Bioactive Compounds, and Pharmaceutical Formulations” in “Journal of Drug Delivery & Therapeutics”, 15(12) 2025 along with Dr. Trilochan Satapathy.

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### Book Chapters

1. **Dr. Disha Kesharwani** published a book chapter entitled “**Clinical Frontiers and Regulatory Status of Micro/Nanoemulsions**” in “**Micro-and Nano-emulsion Technologies: Pharmaceutical Design, Pharmaceutical Development, and Drug Delivery**” under **De Gruyter Brill Publishers**, 2025 along with **Dr. Monika Bhairam, Dr. Swarnali Das Paul, Ms. Sandhya Mishra and Mr. Gunjan Kalyani**.
2. **Gunjan Kalyani & Mr. Sagar Sahu** published a book chapter entitled “**Preclinical Evaluation: Pharmacology, Toxicology, and Safety**” in “**Advances in Pharmaceutical Drug Discovery & Development**” under **Biopress Publication**, 2025.
3. **Gunjan Kalyani & Mr. Sagar Sahu** published a book chapter entitled “**Role of Medicinal Plants in Pharmaceutical Drug Development**” in “**Herbal & Natural Product Drug Development**” under **Biopress Publication**, 2025.
4. **Gunjan Kalyani & Mr. Sagar Sahu** published a book chapter entitled “**Phytochemical Screening, Standardisation, and Quality Control**” in “**Herbal & Natural Product Drug Development**” under **Biopress Publication**, 2025.

### Poster Presentation

The following faculty members and students have attended and presented posters in 74<sup>th</sup> IPC held at BIEC, Benagaluru, Karnataka, from 19-21 December 2025.

S. No.	Name of the Faculty	Title of the Poster
1.	Dr. Beena Gidwani	Effect of polymerized cyclodextrin on inclusion behaviour and pharmacokinetics of abietic acid
2.	Dr. Shashikant Chandrakar	Artificial Intelligence in Pharmaceutical Research
3.	Dr. Monika Bhairam	Dolutegravir Nanosuspension: Formulation, Optimization, In vitro & In-vivo Characterization
4.	Dr. Disha Kesharwani	Formulation, QbD based Optimization and Characterization of Antipsoriatic Transethosomal Gel
5.	Ms. Sandhya Mishra	Formulations and characterisation of Cryptotanshinone loaded NLC gel for topical delivery
6.	Ms. Shilpa Sahu	Development and validation of Chemometric Assisted Spectrophotometric Methods for Simultaneous Determination of Anticancer Drugs in Pharmaceutical Dosage Form
7.	Mr. Shiv Kumar Bhardwaj	Pharmacological Mechanisms & Antidiabetic Potential of Allium Porrum: Insights into Phytosome Formulation & Preclinical Evaluation
8.	Mr. Mahendra Sahu	Network Pharmacology & Molecular Docking Based Prediction of Molecular Target and Signaling Pathway of Piperine in the Treatment of PD
9.	Ms. Ayushi Gupta	Network Pharmacology & Molecular Docking Based Prediction of Molecular Target and Signaling Pathway of Piperine in the Treatment of PD
10.	Mr. Bhishm Sahu	Synthesis & Characterization of Schiff Base Derivatives with Potential Antimicrobial Activity.
11.	Mr. Rahul Goswami	Exploring chromone Analogues: A Novel Therapeutic Strategy for Postprandial Hyperglycemia in Diabetes
S. No.	Name of the Students	Title of the Poster
1.	Yashwant Koshle, V semester	Edible Vaccines
2.	Sarah Aijaz Haque, V semester	Orphan Drugs: Beacon of Hope for Humanity

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## GPAT Quiz- 28

**Q.1 Progressive loss of bone that occurs in osteoporosis is an example of**

- A. Hypertrophy
- B. Hyperplasia
- C. Metaplasia
- D. Atrophy

**Q.2 The visible coloured ring of the eye is called**

- A. Lens
- B. Iris
- C. Cornea
- D. Retina

**Q.3 Which of the following is a Partial Fatty acid oxidation (pFox) inhibitor**

- A. Atosiban
- B. Nicardipine
- C. Trimetazidine
- D. Verapamil

**Q.4 Which of the following is a causative organism for Syphilis**

- A. Clostridium tetani
- B. Bacillus pertussis
- C. Treponema pallidum
- D. Vibrio cholerae

**Q.5 In Michaelis-Menten equation when  $K_m = C$**

- A. Indicates zero-order process
- B. The rate process occurs at a constant rate
- C. Equation becomes identical to first order elimination of drug
- D. The rate of process is equal to half of maximum rate

**Q.6 Outer Covering of the testes is**

- A. Tunica media
- B. Tunica vaginalis
- C. Tunica vasculosa
- D. Tunica albuginea

**Q.7 The optimum temperature for rapid growth of mesophiles is**

- A. 40 to 50 °C
- B. 50 to 60 °C
- C. 25 to 40 °C
- D. 15 to 20 °C

**Q.8 Sarcoma is the cancer of**

- A. Epithelium
- B. Plasma cells
- C. Connective tissues
- D. Glands

**Q.9 The Phase in which two identical copies of DNA are formed is**

- A. G1 phase
- B. S phase
- C. G2 phase
- D. M phase

**Q.10 Renin is released from**

- A. Juxtaglomerular cells (JGCs) of kidney
- B. Microglial cells
- C. Beta-cells of pancreas
- D. Hepatocytes of liver

**Answer GPAT Quiz 27**

1.(a) 2. (a), 3. (d), 4. (c) 5. (b), 6. (a), 7. (b) 8. (d), 9. (d), 10. (b)

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Drop a pebble in the water,  
And its ripples reach out far;  
And the sunbeams dancing on  
                  them  
May reflect them to a star.  
Give a smile to someone passing,  
                  Thereby making his morning  
                  glad;  
It may greet you in the evening  
                  When your own heart may be  
                  sad.  
Do a deed of simple kindness;  
Though its end you may not see,  
                  It may reach, like widening  
                  ripples,  
                  Down a long eternity.

If you think you are beaten, you  
are.  
If you think you dare not, you  
don't.  
If you like to win but think you  
can't,  
It's almost a cinch you won't.  
If you think you'll lose, you're lost.  
For out in the world we find  
Success begins with a fellow's will.  
It's all in the state of mind.  
If you think you are out classed,  
you are.  
You've got to think high to rise.  
You've got to be sure of your-self  
before  
You can ever win the prize.  
Life's battles don't always go  
To the stronger or faster man.  
But sooner or later, the man who  
wins  
Is the man who thinks he can.

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## **Less Known Facts about Traditional Food**

### **Pumpkin Leaves Stir Fried**

Pumpkin leaves are packed with nutrients and offer numerous health benefits, including boosting immunity, improving vision, and aiding digestion, thanks to their high content of vitamins A, C, and K, dietary fiber, and minerals like potassium and iron. They also contain antioxidants that protect against cell damage and may support bone health and heart function.

**Recipe:** Wash pumpkin leaves with stems under running water. With the help of a sharp knife gently remove the thorns. Finely chop the pumpkin leaves and cut the stems in 2" long. In a pan heat oil. Add chopped garlic. Add pumpkin stems first. Fry for 2-3 minutes as pumpkin stems may require more time to cook than its leaves .Add chopped green chillies and chopped pumpkin leaves. Add salt. Cook till pumpkin leaves and stems become soft and tender by covering the pan in low heat. Remove from heat. Serve as a side dish with steamed rice.

#### **Nutritional value:**

<b>Nutrients</b>	<b>Per Serving 100g</b>
Carbohydrate	0.91g
Protein	15.2 g
Fat	0.16 g
Energy	7 Cal
Vitamin A	3.4 mg
Vitamin C	4.4mg
Fibers	6.7 g
Calcium	15 mg

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## Plant with herbal benefits

### Picrorhiza kurroa

**Synonyms:** katuki, katvi, karu, in Hindi, katukarogii in Tamil, “Cannalamparanta” kaud , karu in Panjabi and Common English names such as picrorrhiza, bitter-root.

Picrorhiza kurroa is one of the major income generating non-timber forest products found in the Nepalese Himalayas. It is one of the oldest medicinal plants traded from the Karnali zone.



#### **Scientific classification**

<b>Kingdom:</b>	<b>Plantae</b>
<b>Order:</b>	<b>Lamiales</b>
<b>Family:</b>	<b>Plantaginaceae</b>
<b>Genus:</b>	<b>Picrorhiza</b>
<b>Species:</b>	<b><i>P. kurroa</i></b>

#### **Nutrient value per 100g**

<b>Carbohydrate</b>	<b>: 60.9 g</b>
<b>Fat</b>	<b>: 5.2 g</b>
<b>Protein</b>	<b>: 9.7 g</b>
<b>Crude Fiber</b>	<b>: 7.6 g</b>
<b>Energy</b>	<b>: 329 Kcal</b>

**Morphology:** Leaves: 5–15 cm long leaves, almost all at the base, often withered. Leaves are coarsely toothed, narrowed to a winged stalk. Rhizomes of the plant are 15–25 cm long and woody. Flowers: small, pale or purplish blue, borne in cylindric spikes, spikes borne on almost leafless erect stems. Flowers about 8 mm, 5-lobed to the middle, and with much longer stamens. Fruits: 1.3 cm long.

**Chemical composition:** Chemical composition of Picrorhiza kurroa include Kutkin, a bitter glycoside which contains two C-9 iridoid glycosides, Picroside I and Kutakoside

**Uses:** The rhizome has a long history of use in Indian Ayurvedic medicine for the treatment of digestive problems. Kutki has hepato-protective properties and thus supports the liver and spleen. It is used in all forms of liver damage, cirrhosis, and inflammation of the liver. It protects the liver against damage from the hepatitis C virus.

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## *Upcoming* **EVENTS**

1. New Year 2026 Celebration
2. Republic Day Celebration
3. Saturday Activities
4. NSS Activities

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