



JHARKHAND
Rai University
RANCHI



In this Issue...

- | | |
|--------------------------|----|
| 1. Events at A Glance | 01 |
| 2. Organic Farming | 05 |
| 3. Trash to Treasure | 06 |
| 4. Harvest of Success | 10 |
| 5. NSS Special Camp 2026 | 11 |
| 6. Experiential Learning | 12 |



Ankurân

Krishi Vigyan Patrika

Bi-Annual Newsletter

VOLUME - II | Spring 2026



EVENTS AT A GLANCE



World Forestry Day

World Forestry was celebrated on **Day 21 March, 2026** with great enthusiasm to create awareness about the importance of forests in our life, among the students biodiversity conservation, and sustainable use of natural resource management. All students of the Department along with the faculty members, participated in the programme. The students were sensitized about the key role of forest in maintaining the ecological balance, mitigating climate change, and supporting livelihoods of rural masses.



Dean Academics with faculty & students of the department on the occasion of World Forestry Day.



Winners of the Poster Making Competition receiving the certificate from Dr. Sumit Kumar Pandey, Dean Academics and Dr. Ved Prakash controller of Examination.

World Water Day

The Department organized on the spot Poster Competition on the occasion of World Water Day on **22 March, 2026** to spread awareness among the students and human being regarding the importance of water conservation. Students participated in the competition under the guidance of the faculty members of the department.



Poster Competition

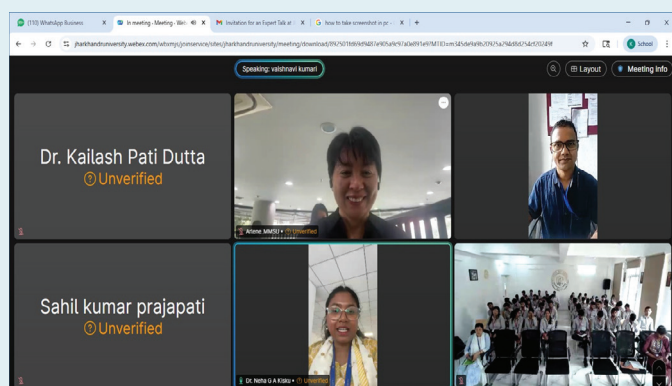
The World Pulses Day was celebrated on **10 February 2026**. An Info graphic Poster Competition was organized to create awareness among the students of the department to understand the value and its role in our socio-economic development of the country.



The Department of Agriculture organized an "Expert Talk" on World Earth Day on 24 April, 2026 on **"From Soil to Sustainability: Driving Innovation in Natural Farming to Protect Our Planet"**. All students and faculty members of the running semester were present on the occasion. Faculty members shared the information and importance of Earth Day among the students.

Sparks International Lecture Series

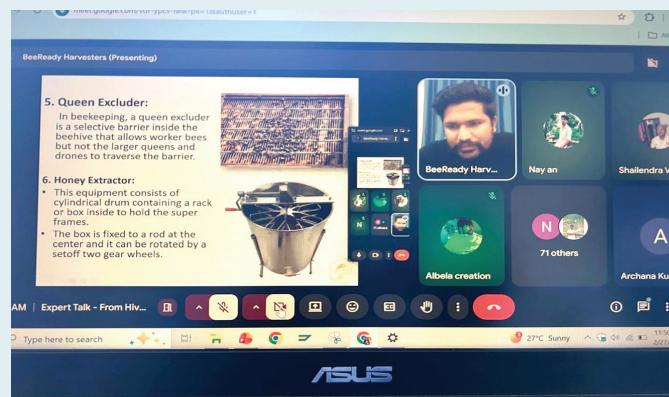
The Department of Agricultural Sciences, in collaboration with the International Affairs, JRU, organized a lecture under the SPARKS International Lecture Series on “Shaping Future Wisely through Futures Thinking” for the B.Sc. (Hons.) Agriculture students on 6th April 2026. Dr. Arlene Lu-Gonzales, was the expert who delivered lecture to the students online. The expert was from the Department of Environmental Science, Mariano Marcos State University. The initiative was undertaken to enhance students' academic knowledge, expose them to emerging developments in agriculture, and provide international perspectives on future-oriented agricultural practices. Through interactions with distinguished academicians and experts, the programme encouraged students to develop critical thinking, innovation, and a global outlook toward sustainable agricultural development.



Dr. Arlene Lu-Gonzales, Mariano Marcos State University (Philippines) with students of JRU (Online)

27th February 2026: The Department of Agriculture, in collaboration with the Institution's Innovation Council (IIC), Jharkhand Rai University, Ranchi, organized an expert lecture on “From Hive to Market: Structured Innovation and IP Commercialization in Beekeeping.” The session was delivered by Mr. Shibham Rana, Director, Beeready Harvester, LLP, India who was the resource person and he delivered the lecture on modern beekeeping

practices, value addition, entrepreneurship, and the commercialization of apiculture-based products. The expert emphasized the transformation of innovative ideas into viable business ventures through effective branding, marketing strategies, with intellectual property (IP) protection.



Expert delivering Lecture in Virtual mode to students

24th April 2026 : An Expert Talk on “From Soil to Sustainability: Driving Innovation in Natural Farming to Protect Our Planet” was organized by the Department for creating awareness about sustainable agricultural practices with importance of natural farming in environmental



Dr. Sumit Pandey, Dean Academics felicitating Mr. Kuldeep Kr. Chek Baraik

conservation was the focus area and was delivered by Mr. Kuldeep Kr. Chek Baraik, who shared this experiences with the students. The expert emphasized the importance of restoring soil health, conserving biodiversity, and minimizing the use of synthetic fertilizers and pesticides through eco-friendly farming practices. The interactive session introduced students to innovative natural farming techniques, resource-efficient crop production, and sustainable land management approaches that contribute to environmental conservation and long-term agricultural productivity.

Workshop on CAD

Designing Tomorrow's Landscape

21 to 22nd April 2026: The Department of Agriculture, in collaboration with the Institution's Innovation Council (IIC), Jharkhand Rai University, Ranchi, organized a two-day workshop on **"Designing Tomorrow's Landscapes: An Innovative Approach"** for the B.Sc. (Hons.) Agriculture students. The resource person of the workshop was Mr. Nilesh Tirkey, CAD Specialist, Institute for Industrial and Academic Research, Ranchi, who introduced the participants to the fundamentals and practical applications of Computer-Aided Design (CAD) in agriculture, landscape planning, and infrastructure development. Through interactive lectures and hands-on training sessions, students had practical experience in preparing digital landscape layouts, site plans, and agricultural infrastructure designs using CAD software.



Students and faculty members with Mr. Nilesh Tirkey (Expert) from IIAR, Ranchi

EDUCATIONAL VISITS

Educational Visits were organized for the **B.Sc. (Hons.) Agriculture students** with the objective of providing practical exposure and enhancing their understanding beyond the classroom.



Visit to Bhagwan Birsa Biological Park, Ranchi



Institutional visit to ICAR-NBPGR Regional station, Ranchi



Students' Educational Visit to Agrotech Kisan Mela, 2026, BAU, Ranchi

The students were given an opportunity to interact with experts and they got first-hand knowledge of field operations, thereby bridging the gap between theoretical learning and practical application. Such educational visits play a vital role in developing technical skills, improving observational abilities, and motivating students toward innovative and sustainable agricultural practices.

Organic Farming: A Pathway to Sustainable Agriculture and Healthy Living-



Poonam Singh

Assistant Professor, Department of Agriculture,
Jharkhand Rai University, Ranchi

Introduction

Agriculture is the foundation of food security and rural livelihoods. Over the years, modern farming practices have helped increase crop production and meet the food demands of a growing population. However, the excessive use of chemical fertilizers and pesticides has also led to challenges such as declining soil health, environmental pollution, biodiversity loss, and concerns about food safety. In response to these issues, organic farming has emerged as a sustainable approach that seeks to balance productivity with environmental stewardship and human well-being.

What is Organic Farming?

Organic farming is a nature-based agricultural system that relies on natural inputs and ecological processes rather than synthetic chemicals. It encourages the use of compost, farmyard manure, vermicompost, green manures, biofertilizers, and eco-friendly pest management practices. The objective is not only to produce healthy and nutritious food but also to maintain soil fertility, conserve biodiversity, and protect natural resources for future generations.

Key Features of Organic Farming

Organic farming is characterized by:

- Use of natural and locally available resources.
- Application of organic manures and biofertilizers.
- Maintenance of soil fertility through crop rotation and green manuring.
- Biological and botanical methods of pest and disease management.
- Conservation of biodiversity and ecological balance.
- Sustainable utilization of soil, water, and other natural resources.

Organic Farming: Nurturing Soil, Health, and Nature
The increasing dependence on chemical-intensive agriculture has undoubtedly enhanced food production, but it has also created environmental and ecological concerns. Continuous use of synthetic inputs can

reduce soil fertility, affect beneficial microorganisms, contaminate water resources, and increase production costs.

Organic farming offers a sustainable alternative by restoring soil health and strengthening natural ecological processes. Organic manures improve soil structure, enhance water retention, and support microbial activity, leading to long-term productivity and resilience. By reducing chemical inputs, organic farming also helps protect air, water, and soil quality while creating a favorable environment for pollinators, earthworms, birds, and other beneficial organisms.

From a health perspective, organic produce is generally associated with lower chemical residues and greater consumer confidence. Growing awareness about food quality, nutrition, and environmental sustainability has contributed to the rising popularity of organic products worldwide. In addition, organic farming supports climate resilience through improved carbon sequestration and sustainable resource management, making it an important component of future agricultural development.

Challenges and Opportunities: Despite its many advantages, organic farming faces challenges such as lower yields during the transition period, limited availability of quality organic inputs, certification complexities, and marketing constraints. However, increasing consumer demand, supportive government policies, and growing environmental awareness are creating new opportunities for its expansion.

India, with its rich agricultural heritage and diverse agro-climatic conditions, has immense potential for organic farming. States such as Jharkhand, where the use of chemical inputs remains relatively low in many regions, are particularly well-positioned to benefit from the adoption of organic agriculture.

Conclusion: Organic farming is more than a method of cultivation; it is a commitment to sustainable living and responsible resource management. By promoting healthy soils, safe food, environmental conservation, and resilient farming systems, it offers a practical pathway toward a greener and healthier future. As agriculture faces the challenges of the twenty-first century, organic farming stands as a promising approach for achieving both productivity and sustainability.

STUDENT SPOTLIGHT

Trash to Treasure: The Vermicompost

Mohan Kumar Sah,
(Semester-II, 2025-29)

BSc Agriculture, Jharkhand Rai University,
Ranchi, Jharkhand, 834010
kumarmohan987sah@gmail.com

Abstract

The increasing generation of biodegradable waste and the excessive use of chemical fertilizers have become major environmental concerns worldwide. Vermicomposting is an eco-friendly and sustainable method that converts organic waste into nutrient-rich compost through the action of earthworms. This process transforms waste materials into valuable organic manure commonly known as “black gold.” Vermicompost improves soil fertility, enhances microbial activity, increases crop productivity, and supports sustainable agriculture. The present article discusses the concept, process, importance, benefits, challenges, and future scope of vermicomposting in detail. It also highlights the role of earthworms in organic waste management and environmental conservation.

Keywords: *Vermicomposting, earthworms, organic waste, sustainable agriculture, black gold, soil fertility*

Introduction

Rapid urbanization, industrialization, and population growth have significantly increased the generation of organic waste around the world. Kitchen waste, crop residues, vegetable waste, dry leaves, and animal dung are often discarded in open dumping sites, leading to environmental pollution and health hazards. Improper waste disposal contributes to foul odor, greenhouse gas emissions, and contamination of land and water resources (Gajalakshmi & Abbasi, 2004).

At the same time, modern agriculture relies heavily on chemical fertilisers to enhance crop production. Continuous application of chemical fertilizers negatively affects soil fertility, microbial activity, and environmental health (Sinha et al., 2009). Therefore, sustainable and eco-friendly alternatives are essential for maintaining soil productivity and environmental

balance.

Vermicomposting has emerged as one of the most effective biological methods for recycling organic waste. It is a process in which earthworms convert biodegradable waste into nutrient-rich organic manure known as vermicompost. The dark-coloured compost produced through this process is commonly called “black gold” for its high nutrient value and positive effects on soil health.

Earthworms play a crucial role in improving soil structure, aeration, water-holding capacity, and nutrient availability. Vermicomposting not only helps in waste management but also promotes organic farming and sustainable agricultural practices (Edwards & Bohlen, 1996).

Historical Background of Vermicomposting

The beneficial role of earthworms in soil fertility has been recognized since ancient times. Charles Darwin described earthworms as “nature’s ploughs” due to their ability to improve soil structure and fertility. In his book *The Formation of Vegetable Mould through the Action of Worms*, Darwin emphasized the importance of earthworms in maintaining productive soils (Darwin, 1881).

Modern scientific research on vermicomposting began during the twentieth century. Researchers discovered that certain earthworm species could efficiently convert organic waste into nutrient-rich compost. Today, vermicomposting is widely practiced across many countries as an environmentally sustainable method of waste recycling and organic fertilizer production.

What is Vermicomposting?

Vermicomposting is the biological process of decomposing organic waste materials through the joint action of earthworms and microorganisms. Earthworms consume organic matter and convert it into fine, stabilized humus-like material called vermicast or vermicompost (Domínguez & Edwards, 2010).

The process involves the breakdown of organic materials such as:

- Vegetable waste
- Fruit peels
- Crop residues
- Dry leaves
- Cow dung
- Kitchen waste

The resulting compost is rich in nutrients, enzymes, beneficial microorganisms, and plant growth regulators that improve soil fertility and plant growth (Pathma & Sakthivel, 2012).

Earthworms: Nature's Black Gold Makers

Not all earthworms are suitable for vermicomposting. Surface-dwelling species with high feeding and reproductive capacity are preferred.

1. *Eisenia fetida* (Red Wigglers)

This is the most commonly used species in vermicomposting due to its rapid multiplication and efficient decomposition ability.

2. *Eudrilus eugeniae* (African Night Crawler)

This species is suitable for tropical climates and has a high rate of organic matter consumption.

3. *Perionyx excavatus* (Indian Blue Worm)

This earthworm species is commonly used in India because of its adaptability to warm climatic conditions.



Fig. Earthworm Species for Vermicompost Scientific Principle of Vermicompostin

Vermicomposting is based on the interaction between earthworms and microorganisms. Organic waste is

first partially decomposed by microbes. Earthworms then feed on the decomposed material and excrete nutrient-rich castings (Arancon & Edwards, 2022).

The digestive system of earthworms contains enzymes and beneficial microorganisms that help break down complex organic compounds into simpler forms. The castings produced by worms are rich in:

- I. Nitrogen
- II. Phosphorus
- III. Potassium
- IV. Calcium
- V. Magnesium
- VI. Humic substances

Methods of Vermicomposting

There are two major methods of vermicomposting.

1. Bed Method

In this method, organic materials are arranged in raised beds above the ground surface. Advantages

- I. Better aeration
- II. Easy management
- III. Faster compost production

2. Pit Method

Organic waste materials are decomposed in pits dug into the soil. Advantages

- Conserves moisture
- Suitable for dry areas
- Disadvantages
- Poor aeration

Risk of waterlogging



Fig. Steps for making vermicompost

Steps of Vermicomposting

Step 1: Site Selection

A cool, shaded, and well-drained place is selected

for vermicomposting. Earthworms are highly sensitive to extreme heat and excessive rainfall.

Ideal Conditions

- Temperature: 20–30°C
- Moisture: 60–70%
- Neutral pH

Step 2: Preparation of Vermicompost Bed

A bedding layer of straw, coconut coir, or dry leaves is prepared to maintain aeration and drainage. The bed usually contains:

1. Bottom layer – dry straw
2. Middle layer – organic waste
3. Top layer – cow dung slurry

Step 3: Addition of Organic Waste

Partially decomposed organic waste is added in layers. Fresh waste is avoided because it generates excessive heat harmful to earthworms.

Step 4: Introduction of Earthworms

Earthworms are introduced uniformly over the compost bed. Approximately 1 kg worms are sufficient for 100 kg organic waste.

Step 5: Moisture Maintenance

Moisture is maintained through regular sprinkling of water. Excess water should be avoided to prevent oxygen deficiency.

Step 6: Harvesting Vermicompost

After 45–60 days, dark granular compost is formed. Watering is stopped for a few days, allowing worms to move downward. The upper compost layer is then collected.

Nutrient Composition of Vermicompost

Nutrient	Average Content
Nitrogen (N)	1.5–2.0%
Phosphorus (P)	1.0–1.5%
Potassium (K)	1.2–1.8%
Organic Carbon	9–18%
Calcium	0.5–1.0%
Magnesium	0.2–0.3%

Source: Adhikary, 2012

Vermicomposting and Sustainable Agriculture

Sustainable agriculture aims to conserve natural resources while maintaining productivity. Vermicomposting supports sustainable agriculture by improving soil fertility, reducing chemical inputs, and recycling organic waste (Kale, 2004).

In India, vermicomposting is promoted through organic farming programs, Krishi Vigyan Kendras (KVKs), and agricultural universities. Rural youth and self-help groups are increasingly adopting vermicomposting as an income-generating activity.

Future Scope of Vermicomposting

The future of vermicomposting is promising due to the growing demand for organic farming and sustainable waste management. Vermicomposting helps recycle biodegradable waste into nutrient-rich organic manure, reducing environmental pollution and improving soil fertility. It also offers opportunities for rural employment, small-scale businesses, and eco-friendly agriculture. With increasing awareness and government support, vermicomposting can become an important part of sustainable agricultural practices in the future.

Conclusion

Vermicomposting is an efficient, economical, and environmentally sustainable method of converting organic waste into nutrient-rich organic manure. Through the activity of earthworms, biodegradable waste is transformed into valuable “black gold” that improves soil fertility, crop productivity, and environmental health.

The process addresses two major global challenges simultaneously: waste management and soil degradation. Vermicompost enhances soil quality, promotes sustainable agriculture, reduces pollution, and minimizes dependence on chemical fertilizers.

Therefore, vermicomposting is not only a waste recycling technique but also an important step toward environmental conservation and sustainable development. By adopting vermicomposting practices at household, community, and farm levels, society can move toward a cleaner environment and healthier future.

Thus, vermicomposting truly demonstrates how “trash” can be transformed into “treasure.”

References

- Adhikary, S. (2012). Vermicompost, the story of organic gold: A review. *Agricultural sciences*, 3(7), 905-917.
- Arancon, N. Q., & Edwards, C. A. (2022). *The Biology of Earthworms*. Springer US. 567
- Darwin, C. (1881). *The Formation of Vegetable Mould through the Action of Worms*. London: John Murray. 326
- Domínguez, J., & Edwards, C. A. (2010). Biology and ecology of earthworm species used for vermicomposting. In *Vermiculture Technology*. CRC Press. 27-40
- Edwards, C. A., & Bohlen, P. J. (1996). *Biology and Ecology of Earthworms*. Chapman & Hall, London. 426
- Gajalakshmi, S., & Abbasi, S. A. (2004). Earthworms and vermicomposting. *Indian Journal of Biotechnology*, 3, 486-494.
- Kale, R. D. (2004). Vermicomposting has a bright scope. In: Edwards CA, editor. *Earthworm Ecology*. Boca Raton (FL): CRC Press; 345-358
- Pathma, J., & Sakthivel, N. (2012). Microbial diversity of vermicompost bacteria that exhibit useful agricultural traits and waste management potential. *SpringerPlus* 1, 2026
- Sinha, R. K., Herat, S., Valani, D., & Chauhan, K. (2009). Vermiculture and sustainable agriculture. *American-Eurasian Journal of Agricultural and Environmental Science*, IDOSI Publication. 1-55

6th CONVOCATION OF JRU

Congratulations to all the graduating students of B.Sc. (Hons.) Agriculture and M.Sc. (Ag.) Agronomy **on the occasion of the 6th Convocation**. Your dedication, perseverance, and hard work have brought you to this significant milestone. As you embark on the next phase of your journey, may you uphold the values of integrity, innovation, and service to agriculture and society. Wishing you a future filled with success, purpose, and continued excellence.



Prof. Piyush Ranjan, Hon'ble Vice Chancellor, Dr. Amrita Majumdar, Registrar, Faculty Members and students on the occasion of 6th Convocation of Jharkhand Rai University

HARVEST OF SUCCESS

JHARKHAND Rai University
RANCHI

Heartiest Congratulations!!

SUCCESSFUL PLACEMENT
#JRUPlacements







Lokesh Pradhan Post Farmer Success Associate
Shubham Kumar Post Customer Support Relationship Officer
Deepika Yadav Post Customer Support Trainee
Ankit Verma Post Customer Support Trainee
Nand Kishore Pradhan Post Farmer Success Associate

Placed at Kheyti Tech Pvt. Ltd.

B.Sc. (Hons.) Agriculture
Batch: 2022-26

www.jru.edu.in

twitter.com/JhRaiUniv facebook.com/jharkhandraiuniversity

JHARKHAND Rai University
RANCHI

Heartiest Congratulations!!

SUCCESSFUL PLACEMENT
#JRUPlacements



Vivek Kumar
Project Coordinator

M.Sc. (Ag.) Agronomy
Batch: 2023-25

Placed at Technology Resource Communication and Service Centre (TRCSC), Jharkhand for the project WADI sponsored by NABARD

www.jru.edu.in

twitter.com/JhRaiUniv facebook.com/jharkhandraiuniversity

JHARKHAND Rai University
RANCHI

Heartiest Congratulations!!

SUCCESSFUL PLACEMENT
#JRUPlacements




Rahul Mehta
Saurabh Kumar

Placed at DeHaat Seeds to Market

B.Sc. (Hons.) Agriculture
Batch: 2022-26

www.jru.edu.in

twitter.com/JhRaiUniv facebook.com/jharkhandraiuniversity

JHARKHAND Rai University
RANCHI

Heartiest Congratulations!!

SUCCESSFUL PLACEMENT
#JRUPlacements



Debayan Sarangi

Placed at Kheyti Tech Pvt. Ltd. as Farmer Success Associate

B.Sc. (Hons.) Agriculture
Batch: 2022-26

www.jru.edu.in

twitter.com/JhRaiUniv facebook.com/jharkhandraiuniversity





My Bharat Budget Quest Competition

Three students from the Department of Agriculture brought laurels to the university by securing selection in the prestigious My Bharat Budget Quest Competition among over 12 lakh participants nationwide. They were also privileged to participate in a virtual interaction with the Hon'ble Prime Minister, marking a proud moment for the department and the university.

The selected students are:

- Mr. Sujal Jaiswal – Semester VI
- Mis. Shruti Raj – Semester IV
- Mis. Riya Kumari – Semester IV



Social Responsibility

The Department of Agriculture organized a 7-Day NSS Special Camp at Mahilong Village with the active participation of B.Sc. (Hons.) Agriculture, Semester IV students. The camp focused on rural development, agricultural awareness, and community engagement through various extension activities.



The programme began with Participatory Rural Appraisal (PRA) exercises and a transect walk, enabling students to understand the village's social and resource profile. Awareness programmes on Poshan Vatika (Nutrition Garden), beneficial insects and eco-friendly pest management, and organic



farming were conducted through demonstrations, posters, and street plays.

The camp concluded with a programme on **“Right Sampling, Right Diagnosis, Right Nutrient Management,”** where students demonstrated scientific soil sampling techniques and highlighted the importance of soil testing for sustainable crop production.



The NSS camp provided students with valuable experiential learning opportunities while strengthening the bond between the university and the farming community, promoting sustainable agricultural practices and rural development.



Experiential Learning Programme (ELP) Practical for Vermicompost



Fig. 01 : Clean the allotted pit



Fig. 02 : Collecting bedding material



Fig. 03 : Adding crops residues



Fig. 04 : Fill the remaining cow dung



Fig. 07 : Vermicompost pit



Fig. 06 : Level the pit



Fig. 05 : Sieving & adding the earthworms

Process flow pictorial chart of vermicomposting

Agricultural education becomes truly meaningful when students learn through practical experience. The Experiential Learning Programme (ELP) of the Department of Agriculture provided students with hands-on exposure through Module I: Organic Production Technology, Module II: Commercial Horticulture, and Module III: Agricultural Waste Management. Designed around the philosophy of "Learning by Doing," the programme strengthened students' technical knowledge, entrepreneurial skills, and confidence by engaging them in real-world agricultural enterprises.

Under Module I (Organic Production Technology), students successfully cultivated a variety of organic vegetables, including bottle gourd, bitter gourd, cucumber, watermelon, tomato, cowpea, spinach, amaranthus, and coriander using eco-friendly farming practices. They participated in every stage of production, from land preparation, seed treatment, organic nutrient management, and botanical pest control to harvesting, packaging, and marketing.

Through Module II (Commercial Horticulture), students gained practical experience in scientific crop planning, nursery management, improved cultivation techniques, irrigation and nutrient management, plant protection, post-harvest handling, and market-oriented production, providing them with a comprehensive understanding of commercial horticultural enterprises.

Module III (Agricultural Waste Management) introduced students to sustainable waste utilization by converting agricultural and floral residues into value-added products such as herbal gulal, organic incense (dhoop), and vermicompost. The module emphasized resource recycling, environmental sustainability, product development, packaging, marketing, and enterprise economics.



Students at work, organic Production Technology at University



The successful implementation of all three modules demonstrated their economic viability through favourable Benefit–Cost (B:C) ratios, while equipping students with practical skills in production planning, resource management, financial analysis, marketing, and entrepreneurship. By effectively bridging the gap between classroom learning and field application, the Experiential Learning Programme nurtured innovation, confidence, and agribusiness acumen, reinforcing the Department's vision of creating job providers rather than job seekers and inspiring students to contribute towards a sustainable and self-reliant agricultural future.

Making of Herbal Gulal by students : An Agricultural Waste Management



Schematic presentation of Marigold Herbal Gulal making process

TOUR DIARY



JRU Students interacting with Scientists of IARI, New Delhi

The Department of Agriculture, JRU, organized an Educational Tour 2026 for 18 students of B.Sc. (Hons.) Agriculture, 6th Semester, offering a unique blend of academic learning, professional exposure, and cultural exploration.

of Plant Genetic Resources (NBPGR), where they gained practical knowledge of modern agricultural technologies such as hydroponics and aeroponics, along with the conservation and management of plant genetic resources.



JRU Students at FRI, Dehradun



Students at Ranchi Railway Station for industrial visit

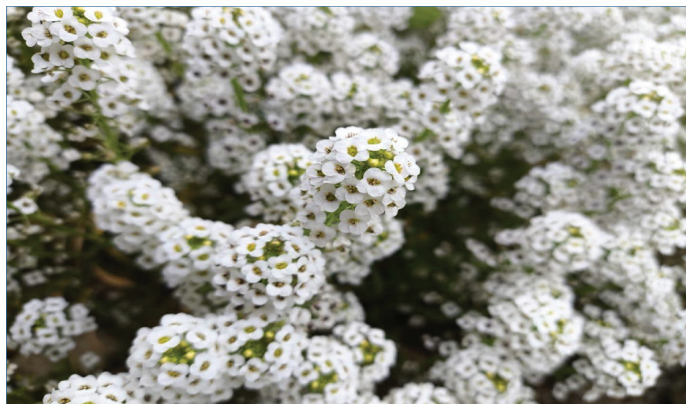
Beginning from Ranchi, the students visited renowned agricultural research institutions in New Delhi, including the ICAR-Indian Agricultural Research Institute (IARI) and the ICAR-National Bureau

The tour also provided opportunities to explore India's rich heritage through visits to iconic landmarks such as the Lotus Temple, India Gate, Qutub Minar, Red Fort, and Akshardham Temple. Upon reaching Dehradun, the students visited the prestigious Forest Research Institute (FRI), where they learned about diverse forest tree species, forest ecology, and ecosystem interactions. They also interacted with officials from the Indira Gandhi National Forest Academy (IGNFA), gaining valuable insights into the training and responsibilities of Indian Forest Service officers. The tour successfully combined scientific learning, environmental awareness, and cultural enrichment, providing students with meaningful experiences and practical exposure beyond the classroom.

GREEN EXPRESSIONS



Topiary | Antra Rani, BA/25/078



Sweet Alyssum (Lobularia maritima) | Antra Rani, BA/25/078



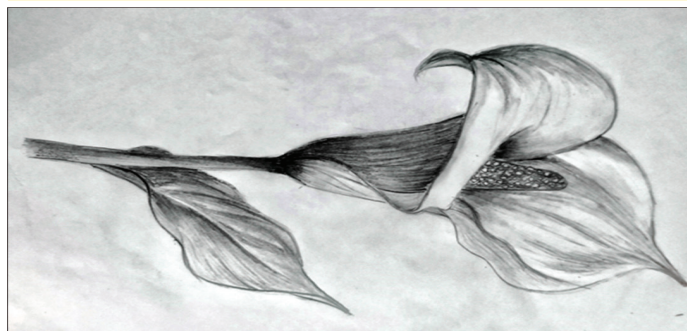
Mohan Kumar Sah, BA/25/079



Dutchman's Pipe (Aristolochia grandiflora) | Sweeti Kumari, BA/24/035



Hibiscus (Hibiscus rosa-sinensis Linn Cultivars) | Sweeti Kumari, BA/24/035



Calla Lily (Zantedeschia spp.) | Devraj Hansda, BA/23/004

Editorial Board

Chief Patron

Prof. (Dr.) Piyush Ranjan,
Vice Chancellor,
Jharkhand Rai University, Ranchi

Patron

Dr. Amrita Majumdar,
Registrar,
Jharkhand Rai University, Ranchi

Advisory Committee

Prof. (Dr.) B. K. Sinha,
Advisor to the Chancellor,
Jharkhand Rai University, Ranchi

Dean IQAC,

Dr. Harmeet Kaur,
Jharkhand Rai University, Ranchi

Dean Academics,

Dr. Sumit Pandey
Jharkhand Rai University, Ranchi

Editor

Dr. Neha Grace Angel Kisku
Assistant Professor
Jharkhand Rai University, Ranchi

Editorial Team

Dr. Neeta Shweta Kerketta, *Associate Professor*
Mrs. Poonam Singh, *Assistant Professor*
Dr. Sourav Sen, *Assistant Professor*
Mr. Rahul Kumar, *Faculty Associate*
Mrs. Archana Kumari, *Faculty Associate*
Jharkhand Rai University, Ranchi

Design & Creative Team

Mr. Shailesh Kumar,
Sr. Manager - Print & Social Designs,
Kautilya Gyan Kendra
Jharkhand Rai University, Ranchi

JHARKHAND Rai University
RANCHI

Jharkhand Rai University, Raja Ulatu, Namkum, Ranchi, Jharkhand, India
Email : info@jru.edu.in Website : www.jru.edu.in
Call Us : 9693296660, 7979899524



Ankurān
Krishi Vigyan Patrika



JHARKHAND
Rai University
RANCHI

Jharkhand Rai University, Raja Ulatu, Namkum, Ranchi, Jharkhand, India

✉ Email : info@jru.edu.in 🌐 Website : www.jru.edu.in ☎ Call Us : 9693296660, 7979899524