

गुरु घासीदास विश्वविद्यालय  
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कोनी, बिलासपुर - 495009 (छ.ग.)





Guru Ghasidas Vishwavidyalaya  
(A Central University Established by the Central Universities Act 2009 No. 25 of 2009)  
Koni, Bilaspur - 495009 (C.G.)


## Report on a Workshop on "Approches to Dairy Waste Management"

Conducted by Dept. of Rural Technology, Dept. of Forestry, Wildlife & Environmental Sciences and Skill Development Cell, GGV, Bilaspur

Date of Event : December 20, 2023

Venue : Department of Rural Technology & Social Development and Mushroom Production Unit

**GURU GHASIDAS VISHWAVIDYALAYA**  
Bilaspur-495009, Chhattisgarh



**Prof. Alok Kumar Chakrawal**  
Hon'ble Vice Chancellor  
G.G.V., Bilaspur (C.G.)

**Department of Rural Technology and  
Social Development & Skill Development Cell**  
A Workshop on  
**"Approches to Dairy Waste  
Management"**

**Date : 20th December 2023**  
**Venue : Department of Rural Technology and Social Development**

**Dean**  
**Prof. R. Mehta**  
SoS, IER  
GGV, Bilaspur

**Nodal Officer**  
**Dr. Rohit Raja**  
Skill Development Cell  
GGV, Bilaspur

**Convener**  
**Prof. P.R. Singh**  
Dept. of Rural Tech.  
GGV, Bilaspur

**Organizing Secretaries**  
**Dr. Dilip Kumar**  
Dept. of Rural Tech.  
**Dr. Bhavna Dixit**  
**Dr. Ajay Singh**  
Dept. of Forestry







### Details of Event Proceedings

Date (DD-MM-YYYY)	Details of the Session	Details of Resource Person	Number of Participants
20-12-2023	Approaches of Dairy Waste Management	Dr. Dilip Kumar (Assistant Professor) Dept. of Rural Technology	76

### A Brief Abstract of the Event (Maximum 500 Words):

#### **\*\*Introduction:\*\***

Guru Ghasidas University is one of the leading Universities in the central region and the first University in the country to implement National Education Policy 2020. The University successfully integrates skill and learning in its culture, thus providing a holistic environment to its students to become self-reliant. University under the able leadership of its dynamic Vice-Chancellor, Prof Alok Kumar Chakrawal has successfully launched one of its major flagship programme known as "Swavalambi (self-reliant) Chhattisgarh" a drastic step towards making Chhattisgarh self-reliant. Dr. Dilip Kumar, Assistant professor of rural technology & social development is also playing valuable role in this through their skill training. The University is at the doorstep of evolving as one of the major breeders of young entrepreneurs to cater to the entrepreneurial needs of Chhattisgarh and Nation as well. University has rightly understood that skill development of the new generation is the call of the Nation and shall serve as the foundation of 'Atmnirbhar Bharat'. Providing skilled manpower to the world is one of the core strategies behind skilling modern day youth.

Dairy waste management is a critical aspect of sustainable agriculture, considering the significant environmental impact and resource conservation opportunities associated with dairy farming. This training report highlights various approaches to effectively manage dairy waste, aiming to equip participants with the knowledge and skills necessary to implement sustainable waste management practices on dairy farms.

#### **\*\*Objectives:\*\***

1. To familiarize participants with the different types of dairy waste and their environmental implications.
2. To introduce participants to approaches and technologies for minimizing, treating, and utilizing dairy waste.





3. To empower participants to develop and implement dairy waste management plans tailored to their farm operations.
4. To promote awareness of regulatory requirements and best management practices for dairy waste management.

**\*\*Training Content:\*\***

1. **\*\*Understanding Dairy Waste:\*\***

- Overview of the types of dairy waste generated, including manure, wastewater, feed waste, and packaging materials.
- Discussion on the environmental impact of dairy waste, such as nutrient runoff, water pollution, greenhouse gas emissions, and odor nuisance.

2. **\*\*Waste Minimization Strategies:\*\***

- Introduction to best management practices (BMPs) for minimizing waste generation at the source, including efficient feeding, milking, and cleaning practices.
- Case studies and success stories demonstrating the benefits of waste reduction on dairy farms.

3. **\*\*Wastewater Treatment Technologies:\*\***

- Overview of on-farm treatment options for dairy wastewater, such as anaerobic digestion, aerobic treatment ponds, and constructed wetlands.
- Explanation of biological and chemical processes for removing pollutants, pathogens, and odors from wastewater.

4. **\*\*Nutrient Management Practices:\*\***

- Discussion on nutrient management planning to optimize the use of dairy manure and effluent as organic fertilizers for crop production.
- Training on composting, vermicomposting, and land application techniques to recycle nutrients and improve soil health.

5. **\*\*Energy Recovery from Dairy Waste:\*\***

- Introduction to anaerobic digestion systems for converting organic waste into biogas, with a focus on energy generation, heating, and electricity production.



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- Overview of methane capture technologies and their role in reducing greenhouse gas emissions from dairy waste.

6. **\*\*Value-added Products and Innovation:\*\***

- Exploration of value-added opportunities for dairy waste, including bio-based plastics, biodegradable packaging materials, and animal feed supplements.
- Discussion on innovative technologies for extracting valuable components from dairy waste for use in various industries.

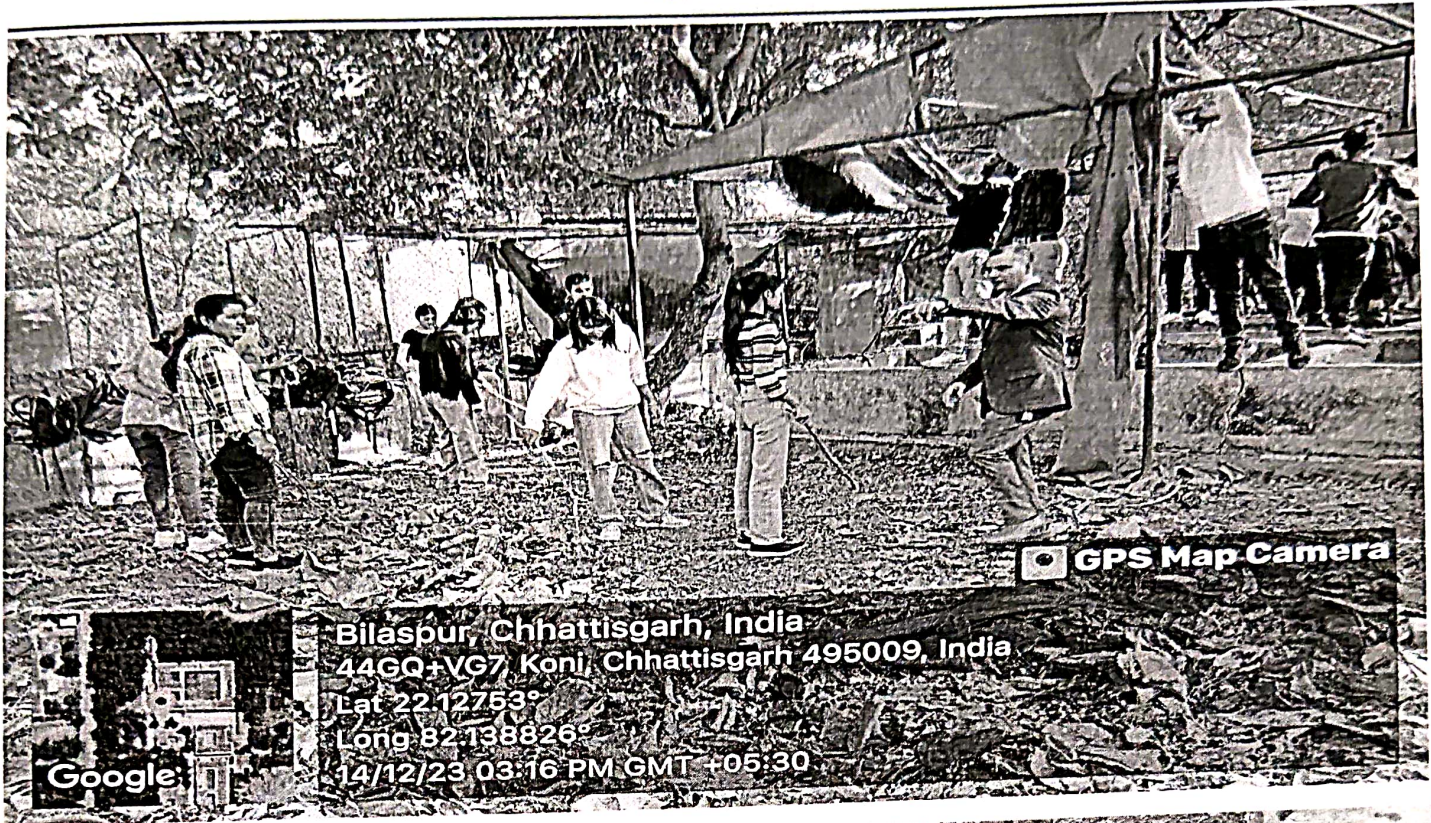
7. **\*\*Regulatory Compliance and Best Practices:\*\***

- Overview of environmental regulations and standards governing dairy waste management, including nutrient management regulations and discharge permits.
- Guidance on developing and implementing dairy waste management plans in compliance with regulatory requirements and industry best practices.

**\*\*Conclusion:\*\***

Dr.Dilip Kumar had provide a effective management of dairy waste requires a holistic approach that encompasses waste reduction, treatment, and utilization strategies tailored to the specific needs and challenges of dairy farm operations. By equipping participants with the knowledge and skills presented in this training, we aim to promote sustainable dairy waste management practices that benefit both the environment and farm profitability.





GPS Map Camera

Bilaspur, Chhattisgarh, India  
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