

Date: 10.02.2023

From,  
Dr. Mahadevaiah,  
Chairman,  
BOS in Sugar Technology

To,  
The Registrar  
University of Mysore  
Mysore.

**Proceedings of the BOS meeting held on 10<sup>th</sup> February -2023 at Crawford Hall,  
University of Mysore, Mysore.**

Chairman welcomed all the members,

1. Approved the panel of examiners for the year 2023-24
2. Reviewed and approved the Syllabus of Open Elective Course/Paper. Sugarcane and Jaggery. Credits, LTP = 4:0:0, C1, and C2 for Internal Assessment Marks 30, C3 Final Examination for 70 Marks )

Name of the Members	Signature
1. Dr. Mahadevaiah, Chairman	 10/2/23
2. Dr. K.S.Venkatesh Member	 10/2/23
3. Dr. M.P.Manohar Member	 10/2/23
4. Dr. Harish Nayaka M A Member	 10/02/2023
5. Dr. Kemparaju Member	
6. Dr. Manohar.B. Member	→ ABSENT
7. K. N. Mohana Member	
8. Dr. Keshavaiah Member	
9. K. T Puneeth Kumar Member	

  
**CHAIRMAN**  
**BOS in Sugar Technology**  
University of Mysore  
Sir. M. Vishvesvaraya P.G. Centre,  
Mandya - 571402

# Sugarcane and Jaggery. Open Elective (4 credits L: T: P -4:0:0)

On completion of the course, the following outcomes are realized

1. One will learn how the Sugarcane is cultivated and jaggery is manufactured.
2. One will understand about the socio - Economic impact of jaggery cottage industry.
3. One can explore the entrepreneurial opportunities of the cottage industry.

## UNIT-1

History, origin and distribution of Sugarcane, Sugarcane producing countries in the world. Area under sugarcane in different states of India. Cultivation of sugarcane, brief lectures on climatic requirements, preparation of land, period of sowing, cane seed, methods of planting, germination, tillering, irrigation and maturity of sugarcane crop. <sup>concepts of cane cultivation</sup> Plant Protection Measures for sugarcane- major diseases and pests of sugarcane and their integrated control measures. Harvesting and transportation. Sugarcane varieties suitable for jaggery production. Jaggery from other plant Sources.

## UNIT-2

Flow Chart for Jaggery Making Process, Open pan and Vacuum Pan System of Jaggery production process; Juice extraction, juice clarification, clarification agents chemical and vegetative clarificants, juice concentration, molding cooling and drying. Technical drawback of traditional method and modern method of jaggery processing. Fuel for jaggery units.

## UNIT-3

Composition and specification of jaggery, Medicinal properties of jaggery, Jaggery vs Sugar Value added Jaggery products, nutritional value of jaggery, Organic jaggery making process. Varieties/Types of jaggery-solid, liquid and powder jaggery.

## UNIT-4

Packaging materials used for jaggery, packing size, keeping period and quality, Food Safety Regulations & Standards for jaggery, marketing and export status of jaggery. Entrepreneurial Opportunities in Jaggery Production.

References:

1. Sugarcane crop Management - S.B.Singh , G.P.Rao and S.Eswaramoorthy.
2. Hand Book of Agriculture - Published by I C A R.
3. Agronomy of Sugarcane Principle and Practice - R.L.Yadava.
4. Sugarcane Development Technological Interface between Tradition and Modernity - Debabrata Das Guptha.
5. Sugarcane Crop Production and Improvement - S. B. Singh, G.P.Rao, S. Solomon and P. Gopla Sundram.
6. Sugarcane in Agriculture and Industry - Dr. Gururaj Hunsigi.
7. Marketing of Jaggery Problems and Prospects - Dr. Puja Sunil Pawar.
8. Jaggery and Khandsari Industry - Present Status, Research and Development Strategies - Bangal Babu and Singh G.B

*[Signature]*  
CHAIRMAN 10/2/23  
BOS in Sugar Technology  
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Mandya - 571402

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10/2/23

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10/2/23  
10/2/2023

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10/2/23

**DEPARTMENT OF SUGAR TECHNOLOGY  
PANEL OF EXAMINERS - 2023-24**

**Internal Examiners**

1. Dr. K. S. Venkatesh, Dept of Sugar Technology, P G Centre, Mandya
2. Dr. Mahadevaiah , Dept of Sugar Technology, P G Centre, Mandya
3. Dr. Manohar M. P, Dept of Sugar Technology, P G Centre, Mandya
4. Dr. Harish Nayaka M. A, Dept of Sugar Technology, P G Centre, Mandya


**External Examiners**

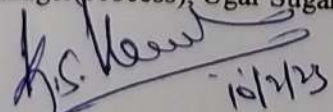
**Chemistry**

1. Dr. T. Demappa, P G Centre, Mandya
2. Dr. B.E. Kumaraswamy, Dept of Industrial Chemistry, Kuvempu University, Shankaraghatta, Shimoga
3. Dr. G. K. Nagaraja, Dept of Chemistry, Mangalore University, Mangalore
4. Dr. Y.D.Bhodike, Dept. of Industrial Chemistry, Kuvempu University, B.R. Project, Shankaraghatta, Shimoga
5. Dr. G. Suresh Kumar, Dept. of Biochemistry, Principal Scientist, CFTRI, Mysuru.
6. Dr. Harish Prashant KV Dept. of Biochemistry, Principal Scientist, CFTRI, Mysuru.
7. Dr. Suresh D Assistant professor, Dept. of Chemistry, Tumkur university, Tumkur

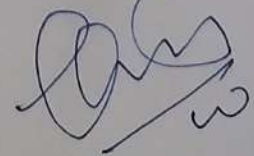
**Sugar Technology**

1. B . V. Nagaraju, Dy. Manger Process, NSL Sugars Ltd., Maddur Tq, Mandya
2. Manjunatha .C., Manger Process, NSL Sugars Ltd., Maddur
3. Puneeth Kumar K.T, Manager, Novozymes Pvt Ltd, Bangalore.
4. Shiva Kumar D C, Manager , Kimberlite Pvt Ltd, Bangalore
5. Amarendra B N, Asst. Manger, CSL, Makavalli, K.R.Pet.
6. Harisha. B. N., GM,(Process), Nirani Sugar, Pandvapura (PSSK)
7. Purushottam, Bannari, Amman Sugars Ltd, Kuntur, Kollegal, Chamarajanagar
8. Dinesh Sharma, Godavari Biorefineries Ltd, Sameerwadi, Mudhol, Bagalkot
9. Binod Kumar S, Jam Sugars Limited, Kundaragi Village, Bilagi Taluku, Belagum District.
10. Sri Kotta Venugopal, manager (Process), EID Parry Ind Ltd, Haliyal, UK Dist.
11. Sri Shankaralingaiah, Manager Process, SCSLtd., K.M Doddi
12. Lokesh H G., Sr.Mfg Chemist, NSL Sugars Ltd.,Koppa, Maddur
13. Mr.Sreenivasa,Sr.Mfg Chemist,NSL Sugars Ltd., Koppa, Maddur
14. Lingaraju., Sr.Mfg Chemist, NSL Sugars Ltd., Koppa, Maddur
15. Narayana. N. A, Asst. Manager, CSL Sugars Ltd., K R Pet
16. Mahesh, DGM (Process), ICP Ltd., Uttur, Mudhol tq., Bagalkot Dist
17. Dr.K.B.Chandrashekar, Dept of Sugar Technology, P G Centre, Mandya.
18. Prakash Chandaragi, EID Parry Haliyal.
19. Mahaveer MoleAjit, Asst Manager(Process), Ugar Sugars Ltd, Ugar, Belagum Dist

  
10/2/23

  
10/2/23

  
10/2/23





## **Sugar Engineering**


1. Dr Ravindra Gabadi, P.G.Centre, Gulbarga University, Bidar.
2. Dhananju, Asst Manager, CSL, Makavalli, K R Pet, Mandya
3. M Mohan, ITC Infotech India Limited, ITC Infotech Park, #18, Banaswadi Main Road
4. Ravi M, DGM(Engineering),SCS Ltd., K M Doddi
5. Dharmesh G L, AGM Eng., BASL - Unit 1, Alganchi, Nanjanagud
6. Purushottam M P, DGM Eng.,NSL Sugars, Koppa

## **Sugarcane Agriculture**

1. Dr. K.M Harinikumar, Agricultuaral University GKVK, Bangalore.
2. Dr. Swamy, Dept. of Plant Breeding and Genetics, GKVK, Bangalore.
3. Dr. Niranjana Murthy, ZARS V.C Farm, Mandya.
4. Dr Thimmegowda, Agronomist, ZARS, VC Farm Mandya
5. Sri Baburaj, AGM, Cane, CSL K R Pet, Mandya
6. Dr. Keshavaiah, Sugarcane Agriculture, ZARS V.C Farm, Mandya.
7. Dr Yogananda, Senior forum Supt, ZARS V.C Farm, Mandya.
8. Dr.K.T. Pandurange Gowda, Asst. Director, ZARS, V.C. Farm, Mandya
9. Dr.M.S.Uma, ZARS, GKVK, Bengaluru
10. Kempaegowda, DGM Cane, SCS Ltd., K M Doddi
11. Dr.R.B.Khandagave, Director, S.Nijalingappa Sugar Institute, CTS.No.4125/1B, Laxmi Tek, Ganeshpur Road, Belagavi - 590 009
12. Prof. Umesh Dept of Bio-Techonology MGM, UOM ,Mysore.
13. Geeta Nagaraju, Dept of Bio-Techonology MGM, UOM, Mysore.
14. Dr.Amruthesh, Dept of Botany, MGM, UOM, Mysore
15. Dr. Sathish, Dept of Microbiology, MGM.UOM.Mysore.
16. Dr. Srinivas . Dept of Microbiology, MGM.UOM.Mysore.
17. Prof. Shubha Gopal, Dept of Microbiology, MGM.UOM.Mysore.

## **Statistics**

1. Dr. S.Ravi, Dept of Statistics, MGM
2. Dr.D.D Somashekhar, Dept of Mathematics, MGM
3. Prof. Yogesh, Dept. of Economics, Kuvempu University, B.R. Project, Shankaraghatta, Shimoga

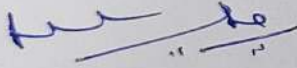


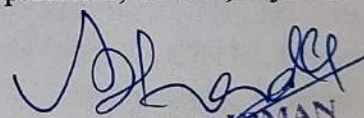
## Management

1. Dr Anand, BIMS, MGM
2. Prof. J.Madegowda, Chairman, Dept. of Commerce, Kuvempu University, B.R. Project, Shankaraghatta, Shimoga
3. Dr. Bheemanagowda, Dept. of Commerce, Kuvempu University, B.R. Project, Shankaraghatta, Shimoga
4. Dr. Aiesha Sharif, BIMS, MGM, UOM, Mysore.
5. Dr. M.L.Ashok. Dept of Commerce, MGM, UOM, Mysore

## Chemical Engineering

1. Dr. Umesh Hebbar, Chief Scientist, Dept of Food Engineering, CFTRI, Mysore
2. G.R. Suma, Dept of Chemical Engineering, SIT Tumkur
3. Harish Phattepur, Dept of Chemical Engineering, SIT Tumkur
4. P .L. Muralidhar, Dept of Chem Eng, RVCE, Bangalore - 59
5. Vidya. C., Dept of Chem Eng, RVCE, Bangalore - 59
6. Dr.Madhu, Dept. Of Chemical Eng, MSRIT, Bengaluru
7. Dr.Rastogi.N.K., Chief Scientist Food Engineering Department, CFTRI, Mysuru.



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