

REF: MSRCASC/BTG/22-23/ 28

6/08/2022

## **CIRCULAR**

### **Department of Biotechnology/Genetics**

#### **VALUE ADDED PROGRAM (Under DBT Star College Scheme)**

It is hereby notified that Dept. of Biotechnology & Genetics, M.S. Ramaiah College of Arts, Science & Commerce is organizing a Value Added Program on “**Conventional Technique of Wine Production: *Averrhoa carambola* & *Vitis vinifera*** for I Year II *semester* students from August 17 to September 17, 2022 held at D-421, Biotechnology Lab-2, Level-4.

Dr. Jayashree D.R.  
(**Convenor**)

Dr. Pushpa H  
(**VicePrincipal**)

Dr. Vatsala G  
(**Principal**)

## Report on Value added course

Value added Program on “**Conventional Technique of Wine Production: *Averrhoa carambola* & *Vitis vinifera* for B.Sc., Biotechnology IYear II semester** students from August 17 to September 17, 2022 held at D-421, Biotechnology Lab-2, Level-4.

**Resource person:** Dr. Jayashree D.R. Professor, Department of Biotechnology & Genetics, MSRCASC

**Objective:** The objective of the Course was to train the students for Entrepreneurship, skill developments and to determine the most economically viable combinations to be adopted for commercial exploitation.

**Number of Participants:** Totally 80 students participated in the programme.

The course duration was for one month. Wine production began about 8,000 year ago. Today 60 countries produce over 100 billion gallons of wine a year. In its basic form, wine production is a natural process that requires very little human intervention. There are five basic stages or steps for making wine: **harvesting, crushing and pressing, fermentation, clarification, and then aging and bottling.**

**The programme was scheduled for four slots of one week each.**

### **First Week: Module 1: Principle involved in Alcohol production & its applications.**

Wine making uses the following basic principles: The sugars present in the fruit (and any sugar that is added to the fruit) are fermented by yeast that is added to the mixture. When sugar is fermented by yeast, it is converted into alcohol (ethanol) and carbon dioxide gas is released.

Wine is used for preventing heart disease and stroke, preventing decline of thinking skills in later life, diabetes, preventing a digestive tract infection that can lead to ulcers, and many other conditions, but there's no good scientific evidence to support most of these uses.

### **Second Week: Module 2: Fermentation Process & Separation of Wine**

**Fermentation Process:** The key ingredient in winemaking is yeast, which helps in converting sugars into alcohol. But, during this module, modified ingredient fermentors like, sprouted cereals (ragi, barley, wheat & whole husk paddy) was used. Varieties of natural fruits and herbs were used for wine production (Black grape) *Vitis vinifera* & (Star fruit) *Averrhoa carambola*) The process was boosted with little amount of sugar, so as to increase fermentation for a week. Culture bottles were air capped tightly, incubated in dark for a week, so as for aerobic microorganisms to release the alcohol.

**Separation of Wine:** The culture glass bottles after incubation from dark was layered with two phases: upper phase with clear liquid, the wine, while, the lower phase with debris of pulp, skin and seeds. The upper phase was collected using separating funnel or filter and transferred to another narrow glass bottles for further aging and bottling, processed by the anaerobic microorganisms.

***Third Week: Module 3: Storage of Wine***

Storage of wine for aging and bottling was final stage of Wine Production from natural fruits & herbs.

***Fourth Week: Module 4: Quantitative analysis of alcohol content from Wine:***

Estimation of alcohol content from wine was essential to know the quality and quantity of wine from different source, as well as to understand the quality of natural fermentors used during the process.

The valedictory function with vote of thanks and distribution of certificates completed the Value-added programme. And the feedback opinions were considered

# WINE PRODUCTION



Harvesting



Pressing



Fermentation



Clarification & Filtration



Aging, Bottling



Estimation of Alcohol



Demonstration & process of Wine Production



**M S RAMAIAH COLLEGE OF ARTS,  
SCIENCE AND COMMERCE**

**VALUE ADDED PROGRAMME  
(Under DBT Star College Scheme)**

**“Conventional Technique of  
Wine Production”  
*Averrhoa carambola*  
&  
*Vitis vinifera***



**Department of  
Biotechnology/Genetics**

**August, 17 – September, 17 2022**

**Venue: Level 4 Room No. 421**

**About Wine Production In India**

*Vitis vinifera* vineyards in India range from the more temperate climate of the northwestern state of Punjab down to the southern state of Tamil Nadu. Some of India's larger wine producing areas are located in Maharashtra, Karnataka and Telangana high heat and humidity of the far eastern half of the country limits viticultural activity. Tamil Nadu, Karnataka, and Andhra Pradesh, grapevines can produce a crop twice a year

*Averrhoa carambola* Wine Production in India ranges in Maharashtra, Karnataka, Meghalaya it is completely Legal to make wine or brew beer at home in India for personal use except in states where it is banned like Bihar, Gujarat, Lakshadweep, Manipur, and Nagaland. In India law states that Wine can be homemade for personal use and not for commercial purpose. While, Entrepreneurship need license.

**RESOURCE PERSON:**

**Prof. Jayashree D.R.**

**Professor & HOD**

**Department of Biotechnology/Genetics,  
MSRCASC**

**Bengaluru-560054.**

**Course Outline:**

- To train the students for Entrepreneurship skill development.
- To determine the most economically viable combinations to be adopted for commercial exploitation.

**Program Schedule**

<b>Four slots of one week</b>	<b>Value Added Program</b>
<b>First Week Module 1:</b>	Principle involved in Alcohol production & its applications.
<b>Second &amp; Third Week Module 2:</b>	Fermentation process & Separation of Wine
<b>Fourth Week Module 3:</b>	Storage of Wine
<b>Fifth Week Module 4:</b>	Quantitative analysis of alcohol content from Wine



**RAMAIAH**  
College of Arts, Science &  
Commerce

## M S Ramaiah College of Arts, Science and Commerce

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Approved by Government of Karnataka, Approved by AICTE, New Delhi,  
Recognized by UGC under 2F & 12B of UGC act 1956

Sl. No.	Student Reg No.	Student name
1.	U18EV21S0136	SHRUTHI S
2.	U18EV21S0138	GAGANA K
3.	U18EV21S0139	KAVYA M
4.	U18EV21S0141	ARCHANA M
5.	U18EV21S0143	VAIBHAV G P
6.	U18EV21S0145	DHANUSHREE
7.	U18EV21S0146	JEEVITA L
8.	U18EV21S0148	VARSHA K V
9.	U18EV21S0150	SHAKTHI KUMAR M
10.	U18EV21S0151	PRAJWAL M
11.	U18EV21S0154	DHANYAREDDY G P
12.	U18EV21S0157	SHREYA J M
13.	U18EV21S0158	CHARITHA P
14.	U18EV21S0160	SARAH SHAIK
15.	U18EV21S0163	RANJITHA
16.	U18EV21S0173	NELLORE LAKSHMI BHAVANI
17.	U18EV21S0174	KRISHNA CHIRAG SHAH
18.	U18EV21S0177	MICHELLE SARAH ROY
19.	U18EV21S0179	MIDUTHURI KARTHIKEYA
20.	U18EV21S0182	BOLLA BHAVANI MADHU MEGHANA
21.	U18EV21S0188	KRUTHI SHARMA
22.	U18EV21S0190	ESHITA S
23.	U18EV21S0191	S SRIVIDHYA
24.	U18EV21S0194	NABOMITA MAITY
25.	U18EV21S0195	DARSHANA C

26.	U18EV21S0196	SRIHARI MAYYA
27.	U18EV21S0201	SHEETAL K
28.	U18EV21S0202	SAHANA M
29.	U18EV21S0205	SPOORTHI P
30.	U18EV21S0210	TEJASWINI P
31.	U18EV21S0212	EMANI AKHILA
32.	U18EV21S0215	SONY S VARGHESE
33.	U18EV21S0216	KAVYA P
34.	U18EV21S0218	PALLAVI B
35.	U18EV21S0219	SHAIK FAHEAD HUSSAIN
36.	U18EV21S0221	AATHIRA
37.	U18EV21S0222	ALAINA KHAN
38.	U18EV21S0224	SANCHITA SINGH
39.	U18EV21S0227	MITHVIK V
40.	U18EV21S0228	CHIRAG U K
41.	U18EV21S0230	GOPIKA G
42.	U18EV21S0231	ISHA RAJ
43.	U18EV21S0233	SANJAY N
44.	U18EV21S0235	SAION ROY
45.	U18EV21S0236	SHABAJ SAKKEER
46.	U18EV21S0239	KAVYA SOMASHEKHAR SHETTAR
47.	U18EV21S0241	A JUNAID KHAN
48.	U18EV21S0243	AMRUTH N
49.	U18EV21S0244	S D SPOORTHI
50.	U18EV21S0245	RAHUL M
51.	U18EV21S0246	YASHASHWINI K N
52.	U18EV21S0247	GURPREET KAUR
53.	U18EV21S0248	AYAAN REHMAN
54.	U18EV21S0249	AMOGHAVARSHA B S
55.	U18EV21S0250	NIHA FATHIMA M



56.	U18EV21S0252	PODELLA ANVESH
57.	U18EV21S0253	GOWTHAM R
58.	U18EV21S0254	LAVANYA A K
59.	U18EV21S0255	ARDRA RAVEENDRAN K
60.	U18EV21S0256	PRASHANTH B
61.	U18EV21S0257	S NACHIKETA
62.	U18EV21S0259	SIDDARTH C RAJESH
63.	U18EV21S0260	AFRAN PASHA
64.	U18EV21S0261	ALIYA KHAN
65.	U18EV21S0262	FAIZA KHAN J
66.	U18EV21S0263	KARTHIK U
67.	U18EV21S0264	GOKUL KRISHNA KIZHAKE KODIATH
68.	U18EV21S0265	KARTHIK
69.	U18EV21S0266	KEERTHI MIRYALA
70.	U18EV21S0267	ANJALI SHIBHU
71.	U18EV21S0268	SYED JAFFER RAZA
72.	U18EV21S0269	HIMANSHU M
73.	U18EV21S0270	PALLAPU VADDI DEEPIKA
74.	U18EV21S0271	MEGHANA KONDARAJU
75.	U18EV21S0272	NAYANASHREE S N
76.	U18EV21S0273	SYED NABEEL ASHRAF
77.	U18EV21S0275	NISARGA B
78.	U18EV21S0276	SUBHAYU GANGULY
79.	U18EV21S0278	AKSHITHA E
80.	U18EV21S0279	AAYUSHI INDLA
81.	U18EV21S0280	TRUPTI M HUGGE PATIL
82.	U18EV21S0281	DHANUSH KUMAR REDDY P
83.	U18EV21S0282	MYTHRI M
84.	U18EV21S0283	RIA RAGHU
85.	U18EV21S0284	VENKATAGIRI KIRTHANA

		SINDHUSHREE
86.	U18EV21S0286	GAURAV SINGH R
87.	U18EV21S0285	KAVITHA K
88.	U18EV21S0287	CHAHAT SINGH
89.	U18EV21S0288	E S JAHNAVI
90.	U18EV21S0289	VACHAN L
91.	U18EV21S0290	TEJASWINI
92.	U18EV21S0291	VARSHA S R
93.	U18EV21S0293	YASHASWINI C R
94.	U18EV21S0294	QUEENCY RAINA
95.	U18EV21S0297	JAHNAVI T A
96.	U18EV21S0298	RANJITHA M
97.	U18EV21S0300	YESHASWINI G
98.	U18EV21S0301	PRAKRUTHI M
99.	U18EV21S0302	CHETHAN G
100.	U18EV21S0303	LEKHANA V
101.	U18EV21S0304	VASUDHA K
102.	U18EV21S0305	J SHIKI HARIKA
103.	U18EV21S0306	ANANYA G
104.	U18EV21S0307	VARSHA P
105.	U18EV21S0308	SUHAS R
106.	U18EV21S0309	ARPITHA SINGH
107.	U18EV21S0310	SUSHMA N
108.	U18EV21S0311	NEJUMA N
109.	U18EV21S0313	KALPITHA S U
110.	U18EV21S0314	DARSHINI G
111.	U18EV21S0315	YESHASWINI M
112.	U18EV21S0316	CHAITANYA M
113.	U18EV21S0317	SHALINI S
114.	U18EV21S0318	JYOTHIKA JAIDEEP

115.	U18EV21S0319	MOHAMMED FAISAL S
116.	U18EV21S0320	SHRAVYA M V
117.	U18EV21S0321	NIMMAGADDA ANUSHA DEVI
118.	U18EV21S0322	DEEPTANGI P MANSULI
119.	U18EV21S0324	ANUSHKA Y S
120.	U18EV21S0325	GOWTHAMI M
121.	U18EV21S0326	ARPITHA
122.	U18EV21S0327	ROOPA SHREE G
123.	U18EV21S0328	TALARI NIHARIKA
124.	U18EV21S0329	K SUDHEER
125.	U18EV21S0330	NEVEDITHA A
126.	U18EV21S0331	NANDINI R
127.	U18EV21S0332	USHA RAJ H R
128.	U18EV21S0333	PREETHI P
129.	U18EV21S0334	MUKTHA SHREE K R
130.	U18EV21S0335	DASARI VENKATA PUJITHA
131.	U18EV21S0336	NISHA JAGANNATH
132.	U18EV21S0337	BHAVYASHREE A
133.	U18EV21S0339	TEJASWINI K S
134.	U18EV21S0341	GOVARDHANA V
135.	U18EV21S0342	MEGHA H R
136.	U18EV21S0343	SUCHITRA S
137.	U18EV21S0344	ANKITHA B
138.	U18EV21S0346	UJJWAL
139.	U18EV21S0349	ARSHIYA FATHIMA
140.	U18EV21S0353	VEDASHREE
141.	U18EV21S0354	RITIKA GUPTA
142.	U18EV21S0356	MEGHA KEDIA
143.	U18EV21S0358	VARADA SRI LAXMI KRUTI