



**Sonopant Dandekar Shikshan Mandali's  
Sonopant Dandekar Arts, V.S. Apte Commerce &  
M.H. Mehta Science College, Palghar**

**Department of Botany**

**Certificate Course**

**FOOD AND VEGETABLE  
PROCESSING**

**Year 2021 - 22**

Sonopant Dandekar Shikshan Mandali's  
**SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND  
M.H. MEHTA SCIENCE COLLEGE, Palghar.**

**Department of Botany**

Date: 22<sup>th</sup>February, 2022

To,  
The Principal  
Dr. Kiran Save  
Sonopant Dandekar Arts, V.S. Apte Commerce and  
M.H. Mehta Science College,  
Palghar.

**Subject:** Proposal for Organizing Course in FOOD AND VEGETABLE PROCESSING

**Name of the Programme:** FOOD AND VEGETABLE PROCESSING

**Organizer:** Department of Botany

**Proposed Day & Dates** –Monday, 7<sup>th</sup> March, 2022

**Objectives –**

- to preserve the color, flavor, texture, and nutrition while prolonging the shelf life of perishable fruits and vegetables
- to supply wholesome, safe, nutritious and acceptable food to consumers throughout the year
- To illustrate the scope and challenges of global mangrove forest towards sustainability.

**Faculty In-charge-** Prof. B.N. Jaiswal

**Proposed Venue:** Botany Main Lab

*B.N. Jaiswal*

Proposed By  
**Prof. B.N. Jaiswal**  
Head, Department of Botany

*Amruth Kalra*

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**SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND  
M.H. MEHTA SCIENCE COLLEGE, PALGHAR**  
Palghar, Dist. – Palghar, Pin – 401 404, E – Mail: sdsmcollege@yahoo.com

Date- 25-02-2022

## Department of Botany

### Notice

All the Student of UG Botany are hereby informed that department of botany is arranging a certificate course on “**FOOD AND VEGETABLE PROCESSING**” in Botany Lab from **07.03.2022**.

The fee for above course is **R.s. 50**

After successful Completion of the Course and Examination, Participants will get Certificate from College for more details kindly contact Department of Botany.

**Venue – Botany Lab, SDSM College**

**Prof. B.N. Jaiswal**  
(Head Dept. of Botany)

## Course Content

### Background

A food Processing Technician is responsible for processing food items and vegetables to make different products by receiving, checking raw material quality, sorting, pulping, pasteurizing, cooking, juice extracting, clarifying, filtering, sampling for quality analysis, cooling, packaging, and storing. This food Processing Technician course is designed to enable training for aspiring professionals in the food processing industry. This course also enables the instructors to develop instructional skills for mentoring the trainees, engaging all trainees in learning process and managing effective utilization of resources

### About Department

The Department of Botany started in 2006 for UG students. For aspirants of higher students, I plant science like plant genetics, Molecular biology, plant biotechnology, plant physiology, plant pathology, plant taxonomy and plant ecology, etc. The department having the botanical garden depository herbarium and Practical lab

### Aim & Objective

- To provide a comprehensive understanding of the fundamental principles of fruits and vegetables processing.
- To equip students with knowledge and hands-on skills in various processing techniques.
- To teach the importance of quality control and maintain nutritional value and ensure Food safety.

### Course Expected Outcomes

On completion of the course the student will be able to

- Identify the spoilage in food and vegetables and state the reason for the spoilage following safety precaution
- Identify and select fresh food and vegetables with the help of checklist
- Prepare, preserve and store food and vegetable products and marmalades by using appropriate machines such as pulper, autoclave & sealer with safety precautions, determine acidity and TSS content, pectin test

### Duration

- Total hours- 35
- Lecture – 35 hours
- Attendance- 75% of attendance is compulsory

### Eligibility and Fees

- B.Sc. (Life Science) students
- Fees- Rs 50

### Faculty

- Prof. B.N. Jaiswal
- Asst.Prof. Asmita P. Raut
- Asst.prof. Dakshata Patil
- Dr. Viraj Chabake



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**Sonopant Dandekar Arts, V. S. Apte Commerce and  
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**DEPARTMENT OF BOTANY**

## Certificate Course in FOOD AND VEGETABLE PROCESSING

### Aim & Objective

- To provide a comprehensive understanding of the fundamental principles of fruits and vegetables processing.
- To equip students with knowledge and hands-on skills in various processing techniques.
- To teach the importance of quality control and maintain nutritional value and ensure
- Food safety.

### Duration

- Total hours- 35
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- Fees- Rs 50
- Duration – 35 hours



START FROM  
7.3.2022

FOR MORE INFO CONTACT NOW  
Asst. Prof. Harshal Chaudhari  
7875869945

## SYLLABUS

<b><u>SYLLABUS</u></b>
<b>Chapter -1</b>
<ul style="list-style-type: none"><li>• Status and scope of food products and vegetable industry in India</li><li>• Definition of Acids, Alkalis, solutions, Titration, pH and salts, their properties etc. Composition and nutritive value of food products and vegetable.</li><li>• Effects of pre-treatment on quality of food items and cut vegetables</li></ul>
<b>Chapter- 2</b>
<ul style="list-style-type: none"><li>• General methods of preservation of whole food products/vegetables and processed vegetables</li></ul>
<b>Chapter- 3</b>
<ul style="list-style-type: none"><li>• Different types of spoilages in food products and vegetables</li><li>• Importance of personal Hygiene, Cleaning &amp; Sanitary standards in Food and Vegetable processing industry</li></ul>
<b>Chapter- 4</b>
<ul style="list-style-type: none"><li>• Technology of extraction of juices from different types</li></ul>

## SYLLABUS COVER

Day	Day	Topic	Sessions
1	07.03.2022	Status and scope of food industry in India Definition of Acids, Alkalis, solutions, Titration, pH and salts, their properties etc. Composition and nutritive value of fruits and vegetable.	2.30hrs.
2	08.03.2022	Status and scope of vegetable industry in India Definition of Acids, Alkalis, solutions, Titration, pH and salts, their properties etc. Composition and nutritive value of fruits and vegetable.	2.30hrs.
3	09.03.2022	Definition of Acids, Alkalis, solutions, Titration, pH and salts, their properties etc. Composition and nutritive value of fruits and vegetable.	2.30hrs.
4	10.03.2022	Definition of Acids, Alkalis, solutions, Titration, pH and salts, their properties etc. Composition and nutritive value of fruits and vegetable. Different types of spoilages in fruits and vegetables	2.30hrs.
5	11.03.2022	General methods of preservation of whole food products	2.30hrs.
6	12.03.2022	General methods of preservation of whole vegetables and processed vegetables Technology of extraction of juices from different types	2.30hrs.
7	14.03.2022	Importance of personal Hygiene, Cleaning & Sanitary standards in Fruits processing industry	2.30hrs.
8	15.03.2022	Importance of personal Hygiene, Cleaning & Sanitary standards in Vegetable processing industry	2.30hrs.
9	16.03.2022	Current trends in food processing industry	2.30hrs.
10	17.03.2022	Current trends in vegetable processing industry	2.30hrs.
11	19.03.2022	Composition and nutritive value of food products and vegetable.	2.30hrs.
12	21.03.2022	Composition and nutritive value of food products and vegetable.	2.30hrs.
13	22.03.2022	Career opportunities	2.30hrs.
14	23.03.2022	<b>Assessment</b>	2.30hrs.
15	24.03.2022	<b>Test</b>	2.30hrs.



**List of Student participation**

Sr. No.	Roll No.	Name of Student	Class
1	2001	VARTAK NIDHI MAHESH	F.Y.B.Sc
2	2002	MACHHI SAHIL MANIRAM	F.Y.B.Sc
3	2003	SINGH SHIVAM KEDARNATH	F.Y.B.Sc
4	2004	KUNTAL MADHU RADHESHYAM	F.Y.B.Sc
5	2006	SANKHE SIDDHI AVINASH	F.Y.B.Sc
6	2007	MHATRE PRIYA KISHOR	F.Y.B.Sc
7	2011	SINHA VISHAL AZAD	F.Y.B.Sc
8	2012	SURVE MONALI HANMANT	F.Y.B.Sc
9	2013	WADEKAR VEDIKA SADANAND	F.Y.B.Sc
10	2014	TIWARI SALVI OMPRAKASH	F.Y.B.Sc
11	2019	BANSODE SAKSHI SAMBHAJI	F.Y.B.Sc
12	2020	KUDU VAISHNAVI VILAS	F.Y.B.Sc
13	2021	SAROJ AAJAD HAWALDAR SAROJ	F.Y.B.Sc
14	2023	PATIL DHRUVIKA DINESH	F.Y.B.Sc
15	2024	BARI ALPITA MAHESH	F.Y.B.Sc
16	2025	SOLANKI DIMPLE MAHESH	F.Y.B.Sc
17	2026	PIMPLE SHRADDHA MADHUKAR	F.Y.B.Sc
18	2027	PATIL SAMRUDDHI VIJAY	F.Y.B.Sc
19	2057	BARI VAISHNAV DHIRAJ	F.Y.B.Sc
20	2058	PATIL SAMRUDDHI ANAND	F.Y.B.Sc
21	2059	RAUT JIDNYASA JITENDRA	F.Y.B.Sc
22	2060	PATEL NIDHI RAJESH	F.Y.B.Sc
23	2064	MHATRE DIYA HEMCHANDRA	F.Y.B.Sc
24	2301	JADHAV ISHA KETAN	S.Y.B.Sc
25	2303	CHOTHANI BHAVIN RATILAL	S.Y.B.Sc
26	2314	KAMADI YUVRAJ NARAYAN	S.Y.B.Sc
27	2317	BARI KRUTIKA KAMALAKAR	S.Y.B.Sc
28	2318	KUVARE PRADIP KRUSHNA	S.Y.B.Sc
29	2321	TELI SHWETA JAYRAM	S.Y.B.Sc
30	2406	MACHHI ASHWINI SUBHASH	S.Y.B.Sc
31	2323	JADHAV JANHAVI HARESHWAR	S.Y.B.Sc
32	2324	THAKUR ISHA GIRISH	S.Y.B.Sc
33	2326	YADAV AJAY RAJESHKUMAR	S.Y.B.Sc
34	2340	KAWAR ANIKET MADHUKAR	S.Y.B.Sc
35	2341	THAKUR RAVINDRAKUMAR RAMBABU	S.Y.B.Sc
36	2710	SINGH PARVATI ANILKUMAR	T.Y.B.Sc
37	2706	CHAUDHARI TEJAS NARHAR	T.Y.B.Sc
38	2716	TIWARI ABHILASHAKUMARI KRISHNAKANT	T.Y.B.Sc
39	2662	KATWATE GAURANGI PURUSHOTTAM	T.Y.B.Sc
40	26030	RANE SURABHI MOHAN	T.Y.B.Sc



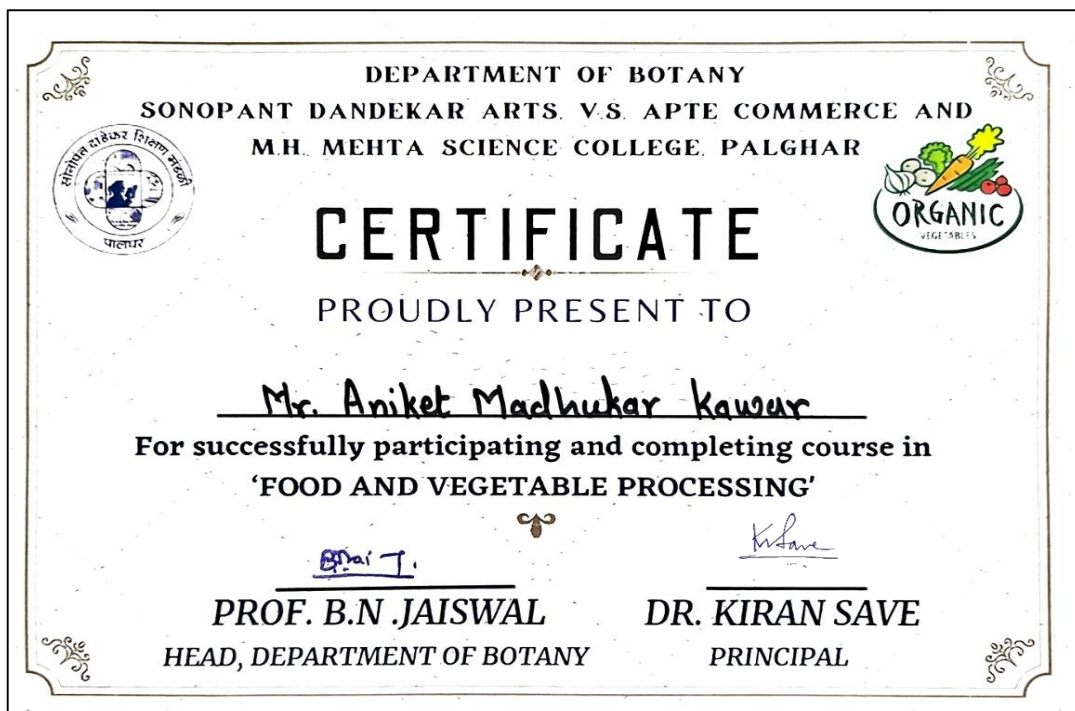
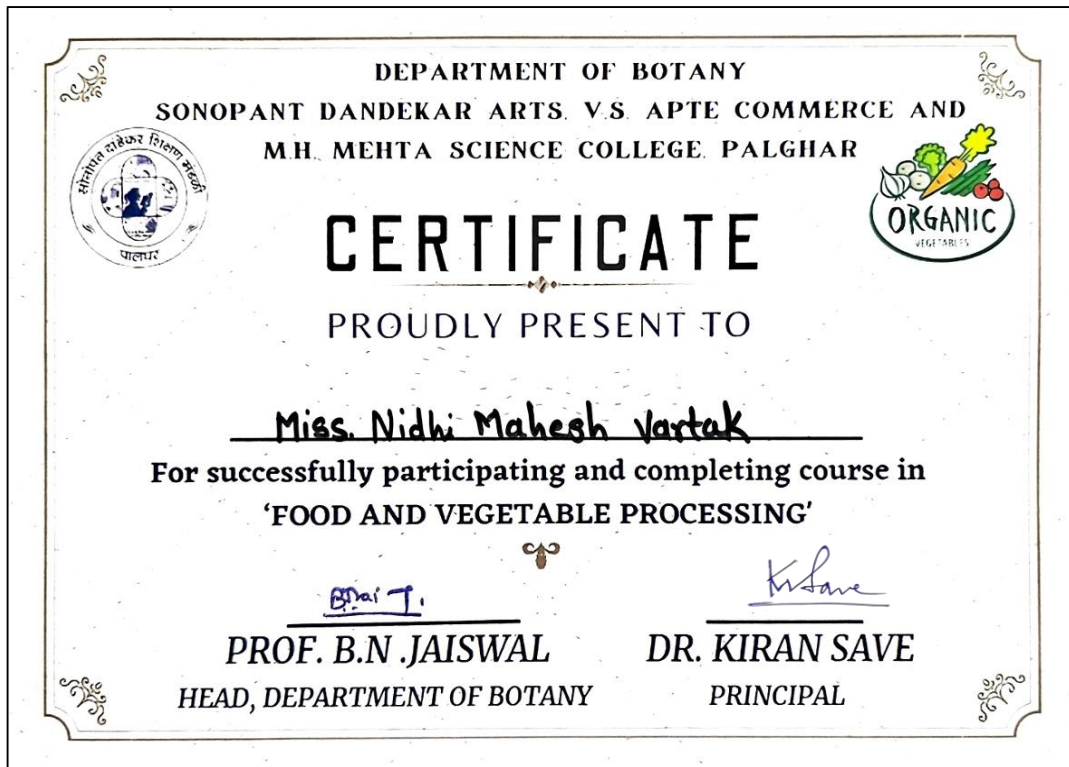
## Attendance

Roll No.	Name of Student	Class	12.03.2022	15.03.2022	16.03.2022	17.03.2022	19.03.2022	23.03.2022	24.03.2022
2001	VARTAK NIDHI MAHESH	F.Y.B.Sc	Nidhi	Nidhi	AB	Nidhi	Nidhi	Nidhi	Nidhi
2002	MACHHI SAHIL MANIRAM	F.Y.B.Sc	Sahil	Sahil	AB	Sahil	Sahil	Sahil	Sahil
2003	SINGH SHIVAM KEDARNATH	F.Y.B.Sc	AB	Sshivam	Sshivam	Sshivam	AB	Sshivam	Sshivam
2004	KUNTAL MADHU RADHESHYAM	F.Y.B.Sc	Madhu	Madhu	Madhu	AB	Madhu	Madhu	Madhu
2006	SANKHE SIDDHI AVINASH	F.Y.B.Sc	Siddhi	Siddhi	Siddhi	Siddhi	AB	Siddhi	Siddhi
2007	MHATRE PRIYA KISHOR	F.Y.B.Sc	Priya	Priya	Priya	Priya	Priya	Priya	Priya
2011	SINHA VISHAL AZAD	F.Y.B.Sc	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal	Vishal
2012	SURVE MONALI HANMANT	F.Y.B.Sc	Monali	Monali	Monali	AB	Monali	Monali	Monali
2013	WADEKAR VEDIKA SADANAND	F.Y.B.Sc	Vedika	Vedika	AB	Vedika	Vedika	Vedika	Vedika
2014	TIWARI SALVI OMPRAKASH	F.Y.B.Sc	Salvi	Salvi	Salvi	Salvi	Salvi	Salvi	Salvi
2019	BANSODE SAKSHI SAMBHAJI	F.Y.B.Sc	Sbansode	Sbansode	Sbansode	Sbansode	Sbansode	Sbansode	Sbansode
2020	KUDU VAISHNAVI VILAS	F.Y.B.Sc	Vaishu	Vaishu	Vaishu	Vaishu	Vaishu	Vaishu	Vaishu
2021	SAROJ AAJAD HAWALDAR SAROJ	F.Y.B.Sc	Aajad	Aajad	Aajad	Aajad	Aajad	Aajad	Aajad
2023	PATIL DHRUVIKA DINESH	F.Y.B.Sc	DHRUVIKA	DHRUVIKA	DHRUVIKA	DHRUVIKA	DHRUVIKA	DHRUVIKA	DHRUVIKA
2024	BARI ALPITA MAHESH	F.Y.B.Sc	Alpita	Alpita	Alpita	Alpita	Alpita	Alpita	Alpita
2025	SOLANKI DIMPLE MAHESH	F.Y.B.Sc	Dimple	Dimple	Dimple	Dimple	Dimple	Dimple	Dimple
2026	PIMPLE SHRADDHA MADHUKAR	F.Y.B.Sc	Shraddha	Shraddha	AB	Shraddha	Shraddha	Shraddha	Shraddha
2027	PATIL SAMRUDDHI VIJAY	F.Y.B.Sc	Samu	Samu	Samu	Samu	Samu	Samu	Samu
2057	BARI VAISHNAV DHIRAJ	F.Y.B.Sc	Vaishu	Vaishu	Vaishu	AB	Vaishu	Vaishu	Vaishu
2058	PATIL SAMRUDDHI ANAND	F.Y.B.Sc	Samu	Samu	Samu	Samu	AB	Samu	Samu
2059	RAUT JIDNYASA JITENDRA	F.Y.B.Sc	Rut	Rut	Rut	Rut	Rut	Rut	AB

2060	PATEL NIDHI RAJESH	F.Y.B.Sc	Patel	Patel	AB	Patel	Patel	Patel	Patel
2064	MHATRE DIYA HEMCHANDRA	F.Y.B.Sc	Diya	Diya	Diya	Diya	Diya	Diya	AB
2301	JADHAV ISHA KETAN	S.Y.B.Sc	Isha	Isha	AB	Isha	Isha	AB	Isha
2303	CHOTHANI BHAVIN RATILAL	S.Y.B.Sc	Bhavin	Bhavin	AB	Bhavin	AB	Bhavin	Bhavin
2314	KAMADI YUVRAJ NARAYAN	S.Y.B.Sc	Y.kamadi	Y.kamadi	Y.kamadi	Y.kamadi	Y.kamadi	Y.kamadi	Y.kamadi
2317	BARI KRUTIKA KAMALAKAR	S.Y.B.Sc	Krutika	Krutika	Krutika	Krutika	AB	Krutika	Krutika
2318	KUVARE PRADIP KRUSHNA	S.Y.B.Sc	Pradip	AB	Pradip	AB	Pradip	AB	Pradip
2321	TELI SHWETA JAYRAM	S.Y.B.Sc	Teli	Teli	Teli	AB	Teli	Teli	Teli
2406	MACHHI ASHWINI SUBHASH	S.Y.B.Sc	Ashwini	Ashwini	AB	Ashwini	Ashwini	Ashwini	Ashwini
2323	JADHAV JANHAVI HARESHWAR	S.Y.B.Sc	Jadhav	Jadhav	Jadhav	AB	Jadhav	Jadhav	Jadhav
2324	THAKUR ISHA GIRISH	S.Y.B.Sc	Isha	Isha	Isha	Isha	Isha	Isha	Isha
2326	YADAV AJAY RAJESHKUMAR	S.Y.B.Sc	Ajay	Ajay	AB	Ajay	Ajay	Ajay	Ajay
2340	KAWAR ANIKET MADHUKAR	S.Y.B.Sc	Aniket	Aniket	Aniket	Aniket	Aniket	Aniket	Aniket
2341	THAKUR RAVINDRAKUMAR RAMBABU	S.Y.B.Sc	Ravindra	Ravindra	Ravindra	AB	Ravindra	AB	AB
2710	SINGH PARVATI ANILKUMAR	T.Y.B.Sc	Singh	Singh	Singh	Singh	AB	Singh	AB
2706	CHAUDHARI TEJAS NARHAR	T.Y.B.Sc	Tejas	Tejas	Tejas	AB	AB	Tejas	AB
2716	TIWARI ABHILASHAKUMARI KRISHNAKANT	T.Y.B.Sc	Tiwari	AB	Tiwari	Tiwari	Tiwari	AB	Tiwari

2662	KATWATE GURANGI PURUSHOTTAM	T.Y.B.Sc	<del>Gaurangi</del>	<del>Gaurangi</del>	<del>Gaurangi</del>	<del>Gaurangi</del>	<del>Gaurangi</del>	<del>Gaurangi</del>	<del>AB</del>	<del>Gaurangi</del>
26030	RANE SURABHI MOHAN	T.Y.B.Sc	<del>Rane</del>	<del>Rane</del>	<del>Rane</del>	<del>AB</del>	<del>Rane</del>	<del>Rane</del>	<del>Rane</del>	<del>Rane</del>

Certificate



## Report

This course provides a comprehensive overview of food vegetable processing techniques and technologies. Through a combination of lectures, laboratory sessions, and hands-on practical exercises, students will learn the principles of vegetable processing, including cleaning, sorting, cutting, blanching, preservation, and packaging. Emphasis is placed on understanding the factors affecting vegetable quality, safety, and shelf-life during processing, as well as the application of processing methods to enhance nutritional value and consumer appeal. Forty students completed this course.

### Course Structure:

**Duration:** 35 Hours

**Format:** Lectures, discussions, case studies, Test

**Date of commencement:** 07-03-2022

**Date of completion:** 24-03-2022

#### Reference Book

- Fruit And Vegetable Preservation Principles and Practices Revised and Enlarged 3Ed by Srivastava
- Food Processing and Preservation by G Subbulakshmi

#### Marks Bifurcation of Certificate course

- 1. Online MCQ -25 Marks (25questions 1Mark each)
- 2. Assignment work -25 Marks
- 3. Presentation- 30 marks

#### Grading System

- The breakdown of the grading system used in CBCS:
- A<sup>+</sup>: 100 (Outstanding)
- A: 90 (Excellent)
- B<sup>+</sup>: 80 (Very good)
- B: 70 (Good)
- C<sup>+</sup>: 60 (Above average)
- C: 50 (average)
- E: 40 (Pass)
- F: 0 (Fail)