



Three weeks online certificate course on **Post-Harvest Management of Horticultural Crops**

April 05 to April 25, 2021

About:

The Centre for Advanced Agricultural Science and Technology (CAAST) for Climate Smart Agriculture and Water Management (CSAWM) is functional since 2018 at the Mahatma Phule Krishi Vidyapeeth (Agricultural University), Rahuri, Maharashtra under the World Bank-sponsored, National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research (ICAR), New Delhi, Government of India. One of the major objectives of CAAST-CSAWM project is to develop the capacity amongst the faculties and students of MPKV, Rahuri and others for the development and adoption of the precision and climate smart agriculture and water management technologies as well as to conduct on-the-job training programmes and case study-based learning to enhance the employment and placement rates along with self-employment, business and entrepreneurship opportunities.



ICAR-National Agricultural Higher Education Project (NAHEP)
The Centre for Advanced Agricultural Science and Technology (CAAST)
for Climate Smart Agriculture and Water Management (CSAWM)
Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri-413 722

Background:

Under changing global scenario and conscious approach, the quality, competitive pricing and the environmental sustainability are the key elements of the agricultural production system. Scientific efforts need be made to develop technologies for horticultural crops to focus the attention on handling and processing; and to tackle specific areas to arrive at practical recommendations. There is a need to develop a protocol for post-harvest handling of those crops, including harvesting, sorting, grading, packaging etc., which could be very remunerative. Several by-products are very popular from those horticultural crops but need to be explored commercially. Strengthening, handling and processing research and establishing a processing unit at different locations will serve the training purpose. It will encourage the youth to come forward to be an entrepreneur in the processing industries. Considering the Post-Harvest Management's importance, a three-weeks online certificate course is organized from April 05 to April 25, 2021, by the CAAST-CSAWM, MPKV, Rahuri with following objectives:

Objectives:

1. To provide knowledge of advanced food processing technologies.
2. To impart knowledge about the global food processing scenario and value addition industries.
3. To generate understanding about global food safety and quality standards.
4. To expose the participants for advanced processing, packaging methods, marketing strategies and export systems.
5. To encourage the participants for establishing processing units.

Methodology for conduct of course:

Pre and Post Evaluation:

Pre and post certificate course evaluation will be carried out to evaluate the impact of the certificate course.

Conduct of the Certificate course:

The certificate course will consist of online lectures-cum-discussions, demonstrations, tutorials, case studies, experience sharing from progressive farmers in relation to climate resilient practices and technologies in post harvest management.

Project Report:

The candidates are required to complete the case study based project report and submit online.

Evaluation:

There will be evaluation of the candidates at the end of the each week, and final evaluation towards the end of the course. The evaluation will be in the form of MCQs, descriptive questions and power point presentation, as the case may be.

Feedback:

Candidates need to provide the feedback towards the end of certificate course.

Duration:

April 05 to April 25, 2021 (Twenty one days)

No. of seats (approximate) : 100 seats on "First-Come-First-Serve" basis (However, 50% seats are reserved for MPKV Students, Faculties and Scientists)

Course fee:

(Non refundable)

Registration fee: Rs. 100/-

Course fee: Rs. 4000 /- (Course fee includes registration fee) Staff and students (constituent colleges) of MPKV, Rahuri are exempted from course fee; however, they need to pay the registration fee.

Important dates:

Last date of application: March 29, 2021.

Confirmation of participation to the candidates: March 30, 2021

Language: English

Who can apply?

Faculty Members, Scientist, Govt. Officers, Non-Govt. Officers, Extension personnel, KVK Officers, Industry persons or any individual who is working and/or is interested in the fields related to agriculture and engineering.

Minimum Eligibility:

Graduate/ Diploma (3 years) or Final year students (registered for at least 7th semester or fourth year) from the bachelor degree program in Agricultural Science, Social Science, Agricultural Engineering and Engineering.

Mode of Application:

Interested candidates should visit following link to register for the certificate course.

<http://www.mpkv-caast.ac.in/page/certificatecourses>

Documents required while applying:

MPKV Candidates: The office reference number of "No Objection Certificate" in case of students and "Permission Letter" in case of staff in the box provided in the form; and email the scan copy of the "No Objection Certificate" or "Permission Letter" as the case may be to "mpkvcaast@gmail.com".

Non MPKV candidates:

The documents in support of minimum eligibility for attending the certificate/module based course to be emailed to "mpkvcaast@gmail.com".

It will be the responsibility of the concerned candidate to obtain the permission of the concerned organisation, if necessary (in case of non MPKV candidate)



For details, refer guideline by clicking here 

Expected Outputs:

The successful candidate will be able to

1. Avoid the post-harvest losses in horticultural produce
2. Establishing processing units
3. Take up self-employment

Experts:

Dr. S. R. Gadakh

Director of Research and Director of Extension Education, MPKV, Rahuri

Dr. S. N. Jha

ADG, ICAR, New Delhi

Dr. R. T. Patil

Ex. Director, CIPHET, Ludhiana

Dr. Nachiket Kotwaliwale

Director, CIPHET, Ludhiana

Dr. N. J. Thakor

Ex. Dean, Faculty of Agricultural Engineering, Dr. BSKKV, Dapoli

Dr. Rajeshwar Matche

Chief Scientist, Food Packaging Technology, Professor, AcSIR, CSIR-CFTRI, Mysore

Dr. R. K. Vishwakarma

Principal Scientist, CIPHET, Ludhiana

Dr. S. K. Chakraborty

Principal Scientist, Agro produce Processing Division, ICAR-CIAE, Bhopal

Dr. S. K. Singh

Former Business Head, Amrit Hatcherries Pvt. Ltd. and Professor, SHIATS University Allahabad

Dr. D. B. Yadav

Head Dept. of Economics, MPKV, Rahuri

Dr. U. D. Chavan

Head, Dept. of Food Science and Technology, MPKV, Rahuri

Dr. K. Narsaiah

I/c Head, AS&EC, Principal Scientist (AS&PE), CIPHET, Ludhiana

Dr. S. P. Sonawane

Professor, Dept. of APE, College of Agriculture, Dhule

Dr. S. B. Swami

Professor, Dept. of APE, PG Institute of Post-Harvest Management, Killa-Roha, Raigad

Sr. S. U. Khodke

Head, Dept. of APE, College of Agril. Engg., VNMKV, Parbhani

Dr. V. S. Supe

ADR, Ganeshkhind, Pune

Er. V. V. Shinde

Chairman & Managing Director, Sahyadri Farmers Producer Company Ltd., Nashik

Er. Santosh Karale

Proprietor, Nihira Food Engineering LLP, PCNTDA, Bhosari, Pune

Dr. V. K. Garande

Professor, Dept. of Horticulture, College of Agriculture, Kolhapur

Dr. K. S. Raghuwanshi

Associate Professor, Pathologist, MPKV, Rahuri

Dr. Sharanagouda Hiregoudar


Associate Professor and Head, Centre for Nanotechnology, Dept. of PFE, CAE, UAS, Raichur

Dr. K. J. Kamble

Associate Professor, Dept. of APE, Dr. ASCAE&T, MPKV, Rahuri

Dr. P. M. Kotecha

Cereal Food Technologist, Sorghum Improvement Project, MPKV, Rahuri





Dr. A. R. Walunj

Assistant Professor, Agricultural Entomology,
MPKV, Rahuri

Mrs. Sumedha Jalgaonkar

Consultant and Trainer,
Foodiesys Consulting, Pune

Dr. M. K. Mahawar

Scientist (ASPE),
ICAR-CIRCOT, Mumbai

Dr. D. A. Pawar

Scientist, CIAE, Bhopal

Mr. Swapnil Kharde

Assistant Professor, IMERT, Pune and Consultant,
Digital Marketing, Pune

Dr. N. K. Bhute

Asstt. Entomologist,
AICCRP on MPKV, Rahuri

Dr. V. P. Kad

Associate Professor, Dept. APE, .
Dr. ASCAE&T, MPKV, Rahuri

Patron

Dr. R. C. Agrawal,

National Director (ICAR-NAHEP) and DDG (Edn.),
ICAR, New Delhi

Dr. P. G. Patil,

Hon. Vice-Chancellor,
Mahatma Phule Krishi Vidypeeth, Rahuri

Advisors

Dr. A. L. Pharande, Dean (F/A) and Director of
Instruction, MPKV, Rahuri

Dr. S. R. Gadakh, Director of Research &
Director of Extension Education, MPKV, Rahuri

Dr. P. N. Rasal,

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Dr. S. D. Masalkar,

Associate Dean, College of Agriculture and
College of Horticulture, Pune

Conveners

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National Coordinator (CAAST), ICAR- National
Agricultural Higher Education Project, New Delhi

Dr. S. D. Gorantiwar

Principal Investigator, CAAST-CSAWM and
Head, Dept. of Agil. Engg. MPKV Rahuri, Maharashtra

Co-Convener

Dr. M. G. Shinde, Professor, SWCE, and CO-PI,
CAAST-CSAWM, MPKV, Rahuri, Maharashtra

Course Director

Dr. V. P. Kad, Associate Professor, Dept. of APE, Dr.
ASCAE&T and Member, CAAST-CSAWM, MPKV, Rahuri

Course Coordinators

Dr. M. N. Baviskar

Research Associate (Horticulture)
CAAST-CSAWM, MPKV, Rahuri

Dr. N. J. Deshmukh

Research Associate (Plant Protection)
CAAST-CSAWM, MPKV, Rahuri

Er. M. A. Tamboli

Research Associate (Computer Science)
CAAST-CSAWM, MPKV, Rahuri





Tentative Schedule

Date: 05/04/2021

Time: 10:00 to 11:30

Theory:

Present status and future prospectus of Indian processing industry and their safety under WTO

Time: 11:30 to 01:00

Theory:

How to setup the food processing industry?

Time: 02:30 to 04:00

Practical:

Cold chain management of horticultural crops

Time: 04:00 to 05:00

Inaugural Function

Date: 06/04/2021

Time: 10:00 to 11:30

Theory:

Food safety management system

Time: 11:30 to 01:00

Theory:

Advances in minimal processing of horticultural produce

Time: 02:30 to 05:00

Practical:

Processing and value addition of major horticultural crops

Date: 07/04/2021

Time: 10:00 to 11:30

Theory:

Management of post-harvest pest and diseases in horticultural crops

Time: 11:30 to 01:00

Theory:

Entrepreneurship development in food processing

Time: 02:30 to 04:00

Digital marketing of horticultural produce

Date: 08/04/2021

Time: 10:00 to 11:30

Theory:

Safe harvesting, handling and quality maintenance of horticultural produce

Time: 11:30 to 01:00

Theory:

Post-harvest physiology and biochemical changes in horticultural crops

Time: 02:30 to 04:00

Practical:

Business opportunities in primary processing of horticultural crops

Date: 09/04/2021

Time: 10:00 to 11:30

Theory:

Strategic approaches to upscale the post harvest management of horticultural crops


Time: 11:30 to 01:00

Theory:

Recent advances in smart food packaging

Time: 02:30 to 04:00

Feedback and individual project allotment





Date: 10/04/2021

Time: 10:00 to 01:00

Success story- sahyadri farms

Time: 02:30 to 05:00

Questions and answer session for individual project

Date: 11/04/2021 - Holiday

Date: 12/04/2021

Time: 10:00 to 11:30

Theory:

Opportunities and challenges of horticultural produce export from India

Time: 11:30 to 01:00

Theory:

Advances in minimal processing of horticultural produce

Time: 02:30 to 04:00

Processing and value addition of major vegetable Crops

Date: 13/04/2021

Time: 10:00 to 01:00

Project

Time for completion of individual project

Time: 02:30 to 05:00

Detailed Project Report (DPR) for assured bank financing

Date: 14/04/2021

Time: 10:00 to 11:30

Theory:

Smart modular food processing units

Time: 11:30 to 01:00

Theory:

Waste management during processing of horticultural crops

Time: 02:30 to 04:00

Practical:

Advances in drying of horticultural produce

Date: 15/04/2021

Time: 10:00 to 11:30

Theory:

Role of honey bees in quality horticultural production.

Time: 11:30 to 01:00

Theory:

Canning of horticultural produce

Time: 02:30 to 04:00

Practical:

Preparation of different value-added products from processing waste

Date: 16/04/2021

Time: 10:00 to 11:30

Theory:

Recent techniques in horticultural crops for quality production

Time: 11:00 to 01:00

Dehydration of fruits and vegetables

Time: 02:30 to 04:00

Evaluation of individual project and allotment of Group project

Date: 17/04/2021

Time: 10:00 to 11:30

Processing of minor fruit crops and value addition

Time: 11:30 to 01:00

Questions and Answer session for group project

Time: 02:30 to 05:00

Time for completion of group project

Date: 18/04/2021 – Holiday



**Date: 19/04/2021**

Time: 10:00 to 01:00

Practical

Use of Different Machineries and Equipment's Used in Post-Harvest Management of Horticultural Crops

Time: 02:30 to 05:00

Time for completion of group project

Date: 20/04/2021

Time: 10:00 to 11:30

Theory:

Home scale production of different horticultural processed products

Time: 11:30 to 01:00

Theory:

Methods and instruments of quality determination and quality standards for fresh and processed fruits and vegetables

Time: 02:30 to 05:00

Practical:

Time for completion of Group Project

Date: 21/04/2021

Time: 10:00 to 11:30

Use of Nano-technology in processing of horticultural produce

Time: 11:00 to 01:30

Safe storage of horticultural produce

Time: 02:30 to 04:00

Machine vision approaches for post harvest processing of agricultural products

Date: 22/04/2021

Time: 10:00 to 11:30

Textural quality evaluation of fruits and vegetables

Time: 11:30 to 01:00

Micro-encapsulation of bio-active food ingredients

Time: 02:30 to 04:00

Advances in packaging of horticultural produce

Date: 23/04/2021

Time: 10:00 to 05:00

Evaluation of group projects

Date: 24/04/2021

Time: 10:00 to 11:30

Risk Assessment in food processing industry

Time: 11:30 to 01:00

Advances in processing of citrus crops

Time: 02:30 to 05:00

Feedback from participants

Date: 25/04/2021 - Valedictory Session**Contacts****Course Director:****Dr. V. P. Kad** - Mobile No. +91 7588024697, E-mail: vikramkad2014@gmail.com**Course Coordinators****Dr. M. N. Baviskar**- Mobile No. +91 9423025990, E-mail: mangesh248@gmail.com**Dr. N. J. Deshmukh**- Mobile No. +91 9404979450, E-mail: nandlaldeshmukh@gmail.com**Er. M. A. Tamboli** - Mobile No. +91 9860646586, E-mail: mohasin.ayub@gmail.com