

**APPLICATION FORM FOR PARTICIPATION
IN SUMMER SCHOOL**

**ICAR-Summer School on
Cutting edge epitome of processing, value addition
and waste utilization of horticultural crops for
augmenting farmers income**

October 1-21, 2019

1. Full Name (IN BLOCK LETTERS):
2. Designation:
3. Present employer and address:
4. Address to which reply should be sent (In BLOCK LETTERS along with mobile, telephone, email):
5. Permanent Address:
6. Date of Birth:
7. Sex (Male/Female):
8. Mobile No.:
9. Email:
10. Teaching / Research / Professional experience: (mention post during the last 5 years and number of publication with details)

S. No.	Post held	Period with date

11. Marital Status: Married/Unmarried:
12. Mention if you have participated in any seminar, summer / winter school/ Short Course, etc., during the previous years under ICAR/ Other organizations:.....
13. Postal Order/ DD No.....Dated.....of Rs. 50/- (Non Refundable) For registration of application (In favor of ICAR Unit-CIPHET, Ludhiana).
14. Academic record: (Degree onwards)

Examination	Subject	Year	Division	University
Bachelor				
Master				
Doctorate				
Post- doc				

Signature of the applicant with date & place

15. Recommendation of forwarding institute: It is certified that information furnished by the candidate has been verified and found correct.

**Signature with date, designation & address of
sponsoring authority**

(Office seal)

IMPORTANT DATES

Last date of receipt of Application : 18.09.2019
Intimation of selection : 20.09.2019
Confirmation of participation by candidates : 23.09.2019

Note: Only selected candidates will be intimated through e-mail, fax or by post to which they should reply promptly with firm acceptance and travel plans.



CONTACT ADDRESS

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Course Director

ICAR Summer School, October 01-21, 2019
Division of Horticultural Crop Processing, ICAR-
CIPHET, Malout-Hanumangarh Bypass, Abohar-152116 (Punjab)
For further details, log on : www.ciphnet.in



Summer School

on

**Cutting-edge epitome of processing, value
addition and waste utilization of horticultural
crops for augmenting farmers income**

Oct 01-21, 2019

-: Sponsored by :-

**INDIAN COUNCIL OF AGRICULTURAL
RESEARCH, NEW DELHI**



Course Director
Dr. Sunil Kumar

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Dr. Ramesh Kumar
Dr. Sandeep Mann

Organized by

**ICAR- Central Institute of Post-Harvest
Engineering and Technology, Ludhiana-141004
(An ISO 9001: 2015 Certified Institution)**

www.ciphnet.in



ABOUT THE COURSE

Production of horticultural commodities has today surpassed food grain production and reached a level of about 312 million MT from an area of about 26 million ha in India. However, this increased production in our country is of significance only when the produce reaches to consumer in good and consumable condition at a reasonable price as horticultural crops are highly perishable and more than 6-16% of the horticultural produce is lost just in the value chain. Post-harvest operations like fresh handling, storage, processing, packaging and transportation of horticultural produce remained a major bottle neck in the development of horticulture industry in the production catchment due to their short shelf-life and inability to process the market glut. As a result of this, fruits and vegetables costing nearly Rs. 31500 crores are wasted annually in India that can be saved through efficient management of post-production and processing of these commodities. Although, agricultural land is shrinking day by day to produce more from the cultivable area but processing of horticultural produce offers great scope for conversion of perishable farm produce to consumer's durable products. Application of modern post-harvest management and processing technology can substantially reduce such wastage, increase shelf-life of fruits and vegetables that eventually improve the level of processing, value addition and income to the farmers from different classes of consumers, as the processed commodities have wider market. Utilization of horticultural waste for extracting high value compounds may further enhance the income of the growers and processors. Thus, processing of fruits, vegetables and spices into different value-added products will not only reduce the post-harvest losses, but also provide significant employment opportunities to the rural youth besides being increasing income of the farmers by fetching higher price in the market for value added products. Government policy for doubling the farmers' income by 2022 can be an additional benefit to promote processing and value addition of horticultural produce and to drive growth, employment and economic prosperity in rural areas by transforming farmers and processors into a smart businessman through technology dissemination.

COURSE CONTENTS

Course contents include lectures, hands-on practical experience and field visit on important topics of which some are listed below:

- ▶ Strategies for doubling farmer income through agro-processing
- ▶ Recent technological advances in post-harvest sector for enhancing farmer income
- ▶ Post-harvest loss reduction in production catchment of horticultural produce for additional income
- ▶ Technologies for manufacturing of fruit bar & leathers for Agri-business start-ups
- ▶ On-farm practices to maintain the quality of horticultural produces
- ▶ Application of modified atmospheric packaging for storage of perishables

- ▶ Microencapsulation technique for high value ingredients
- ▶ Conversion of agro biomass to wealth for additional income
- ▶ Extraction of high value products from agricultural and horticultural wastes
- ▶ Processing, integrated quick freezing and low cost drying of vegetables
- ▶ Label free biosensors for value addition of agricultural produce
- ▶ HACCP in food processing
- ▶ Digital image processing and machine vision technology for quality evaluation of food
- ▶ Value added products from horticultural commodities for additional income generation
- ▶ Fermentation technology for value addition of agricultural produce
- ▶ Processing of nutritious food for addressing malnutrition problem among farm women
- ▶ Entrepreneurship development through processing and value addition of horticultural/agricultural produce
- ▶ Extrusion technology for preparation of self-stable products
- ▶ Cold Chain Management for reducing post-harvest losses and increasing farmer income
- ▶ Nano-composite based polymers for packaging and storage of food products

FIELD TRIPS & EXPOSURE VISITS

There shall be three to four field visits to important agro-processing industries and laboratories located in Punjab.

ELIGIBILITY

Active researcher/ teachers/ SMS/Lecturer/ Scientist not below the rank of Assistant Professor or equivalent and above from ICAR institutes/ SAUs/ CAUs/ DUs/ ICAR/ National Institute/Universities/IIT/NIT approved by UGC, having minimum two years of experience, in the disciplines of Agricultural Engineering/ Processing, Food Engineering/Food Science and technology/Post-Harvest Technology/Agriculture/ Horticulture and allied Sciences are eligible to apply. A maximum of 25 participants will be selected for the course by the screening committee as per the ICAR guidelines. The decision of the selection committee will be final and no correspondence in this regard will be entertained for non-selected candidates.

TRAVEL, BOARDING & LODGING

The boarding and lodging expenses for the selected candidates will be borne by the organizers as per ICAR guidelines. The expenditure on travel by all participants will be paid as per their entitlement for the class of travel, restricted to the maximum of AC II/III Tier railway fare by the shortest possible route. Participants will be required to produce the original tickets in support of their claims. The lodging and boarding arrangements for selected participants shall be made free of cost in the guest house of ICAR-CIPHET located in the institute campus on sharing basis.

Note: Reimbursement of airfare will not be done under any circumstances.

HOW TO APPLY

Interested candidates may apply online by registering at CBP vortal (<https://cbp.icar.gov.in/>) strictly following the guidelines under "How to Apply Tab". The candidates may also apply through IASRI website using CBP vortal Tab (<http://iasri.res.in/cbp/>) latest by 31st August, 2019. Hard copy of successfully submitted online form and application duly filled in the prescribed format along with demand draft of Rs. 50/- (non-refundable) drawn in favour of ICAR-Unit-CIPHET, Ludhiana payable at Ludhiana should be sent to the course director after approval from competent authorities. The list of the selected participants will be displayed on ICAR-CIPHET website (www.ciphet.in) and will also be conveyed to the applicants through e-mail. In case of any query, please contact course Director or Co-Directors. It is advised to apply online as follows:

. Visit the website <https://cbp.icar.gov.in/> or Click on 'Capacity Building Program' link under <https://www.icar.org.in> To create User Id use "Create New Account" link. Login using your User Id & Password. After login, click on "Participate in Training" link and fill the Performa.

HOST INSTITUTE

ICAR- Central Institute of Post-Harvest Engineering and Technology (CIPHET) with its campuses at Ludhiana and Abohar (Punjab) is an ISO certified premier institute under National Agricultural Research and Education System (NARES) of ICAR for undertaking lead research in the area of post-harvest engineering and technology. The institute envisions higher profitability of agricultural production systems ensuring better income to farmers and increased employment opportunities in rural sector through efficient post-harvest engineering and technological interventions for loss reduction and value addition to agricultural produce and by-products resulting in high quality and safe food and feed at competitive prices for domestic and export markets. This institute gives special emphasis on developing new processes and products, prototypes of processing machineries for products from different agricultural crops/ horticultural commodities/ livestock/ fisheries and their by-products. The institute conducts regular entrepreneurship development programmes for the technologies developed by it and has linkages with state agricultural universities and other ICAR institutes.

ABOUT LUDHIANA

Ludhiana popularly known as Manchester of India, is on the bank of river Sutlej and is centrally located on the map of Punjab. Ludhiana is located 100 km west from state capital Chandigarh on NH 95 and centrally located on National Highway-1 from New Delhi to Amritsar. The city is well connected to New Delhi by road, rail and air. The city is famous for its hosiery and textiles, bicycle and sewing machine industries.

WEATHER

The weather during the Summer school will be generally hot and humid. The temperature in October may be between 25°C to 36°C, however, nights may observe 20-25°C temperature.