

Centre for Advanced Agricultural Science and Technology (CAAST)  
for Climate Smart Agriculture and Water Management (CSAWM)



Mahatma Phule Krishi Vidyapeeth, Rahuri

Tal. Rahuri 413 722, Dist. Ahmednagar, Maharashtra  
(<http://www.mpkv-caast.ac.in/>; [info.rahuri@mpkv-caast.ac.in](mailto:info.rahuri@mpkv-caast.ac.in))

## CERTIFICATE

This is to certify that **Mr. Oleh Prysiashniuk**, PhD, Head of the department, Institute of Bioenergy Crops and Sugar Beet NAAS, Kiev (Ukraine) successfully completed Three week online training course on "Climate Smart Organic Farming" organized by the Centre for Advanced Agricultural Science and Technology (CAAST) for Climate Smart Agriculture and Water Management (CSAWM), Mahatma Phule Krishi Vidyapeeth, Rahuri (Maharashtra State) under the National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research (ICAR), New Delhi during February 15 to March 07, 2021.

(M. G. Shinde)

Organizing Secretary &  
Co-Principal Investigator  
CAAST-CSAWM, MPKV, Rahuri

(S. D. Gorantiwar)

Convener &  
Principal Investigator  
CAAST-CSAWM, MPKV, Rahuri

(A. L. Pharande)

Dean &  
Director of Instruction  
MPKV, Rahuri



### Patron

**Dr. R. C. Agrawal,**  
National Director (ICAR-NAHEP) and  
DDG (Edn.) ICAR, New Delhi

**Dr. A. S. Dhawan**  
Hon. Vice-Chancellor,  
Mahatma Phule Krishi Vidyapeeth, Rahuri

### Advisors

**Dr. A. L. Pharande**  
Dean (F/A) and Director of Instruction,  
Mahatma Phule Krishi Vidyapeeth, Rahuri

**Dr. S. R. Gadakh**  
Director of Research & Director of Extension Education,  
Mahatma Phule Krishi Vidyapeeth, Rahuri

**Dr. P. N. Rasal**  
Associate Dean, Post Graduate Institute, MPKV, Rahuri

**Dr. D. D. Pawar**  
Associate Dean, Dr. A. S. College of Agril. Engg. &  
Technology, MPKV, Rahuri

**Dr. S. D. Masalkar**  
Associate Dean, College of Agriculture and College of  
Horticulture, Pune

### Conveners

**Dr. Prabhat Kumar**  
National Coordinator (CAAST),  
ICAR- National Agricultural Higher Education Project,  
New Delhi

**Dr. S. D. Gorantiwar**  
Principal Investigator, CAAST-CSAWM &  
Head, Dept. of Agricultural Engineering,  
MPKV Rahuri, Maharashtra

### Co-Convener

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

### Course Director

**Dr. U. S. Surve**  
Professor, Dept. of Agronomy, PGI &  
Chief Agronomist, AICRP-IFS & Co-Nodal Officer,  
Organic Farming Research & Training Centre & Member,  
CAAST-CSAWM, MPKV, Rahuri  
Mobile No. +91 9822606511, e-mail: drulhas11@gmail.com

### Course Coordinators

**Dr. S. D. Thorat**  
Research Associate (Agronomy)  
Mobile No. +91 7755956181, 8806727662  
e-mail: sunilthoratagronomist@gmail.com

**Dr. R. K. Sonawane**  
Research Associate (Agronomy)  
Mobile No. +91 9403103233  
e-mail: ro\_hhit@yahoo.com

**Dr. Nilam Kondvilkar**  
Research Associate (Soil Science),  
Mob. +91 9370368351  
e-mail: nilamkondvilkar@gmail.com

**Er. Mohsin Tamboli**  
Research Associate (Computer Science),  
Mob. +91 9860646586  
e-mail: mohasin.ayub@gmail.com

### Experts:

**Dr. N. Ravishankar,** Principal Scientist & Programme,  
Facilitator, ICAR-Indian Institute of Farming System Research  
Modipuram, UP, India

**Dr. A. V. Solanke,** Head, Dept. of Agronomy, MPKV, Rahuri

**Dr. B. D. Bhakare,** Head, Deptt. of Soil Science & Agril.  
Chemistry and Member, CAAST-CSAWM, MPKV, Rahuri

**Dr. Ravikant Avasthe,** Senior Scientist, ICAR Research  
Complex for NEH Region Sikkim Centre, Gangtok, Sikkim

**Dr. P. S. Bodake,** Head, Dept. of Agronomy, Dr. B. S. Konkan  
Krishi Vidyapeeth, Dapoli

**Dr. V. S. Supe,** ADR, NARP, Ganeshkhind, Pune

**Dr. A. B. Kamble,** Professor, Dept. of Agronomy, College of  
Agriculture, Pune

**Dr. U. S. Surve,** Professor, Dept. of Agronomy and Member,  
CAAST-CSAWM, MPKV, Rahuri

**Dr. V. A. Khadse,** Extension Agronomist, Directorate of  
Extension Education, Dr. Panjabrao Deshmukh Krishi  
Vidyapeeth, Akola, Maharashtra, India

**Dr. A. K. Gore,** Principal Investigator, Organic Farming  
Research and Training Centre, VNMKV, Parbhani

**Dr. A. M. Navale,** Professor, Dept. of Plant Pathology & Agril.  
Microbiology, MPKV, Rahuri

**Dr. R. V. Datkhile,** In-charge Biocontrol Laboratory, Dept. of  
Entomology, MPKV, Rahuri

**Dr. A. G. Durgude,** Analytical Chemist, Micro-nutrient  
Research Scheme and Member, CAAST-CSAWM, MPKV, Rahuri

**Dr. V. G. Pokharkar,** Assistant Professor, Deptt. of Agriculture  
Economics, MPKV, Rahuri

**Dr. A. R. Walunj,** Assistant Professor, AICRP on Arid Zone  
Fruit, Dept. of Horticulture, MPKV, Rahuri

**Dr. Subhash Babu,** Scientist, Division of Agronomy, IARI, New  
Delhi, India.

**Dr. M. N. Bhalekar,** Senior Vegetable Breeder, Dept. of  
Horticulture, MPKV, Rahuri

**Dr. B. K. Gavit,** Associate Professor, Dept. of SWCE, Dr.  
ASCAE&T, MPKV, Rahuri

**Dr. V. P. Kad,** Associate Professor, Dept. of APE, Dr.  
ASCAE&T, MPKV, Rahuri

**Dr. N. K. Bhute,** Assistant Entomologist, AICRP on Cotton,  
MPKV, Rahuri

**Dr. Prashant Naikwadi,** President, ROMIF India and Adviser  
Organic Farming Scheme, Maharashtra State, India

**Shri. Vivek Rohakale,** Director, Vijaya Agro Industries, Tal.  
Sangamner, Dist. Ahmednagar

**Shri. Anil Deshmukh,** Krishi Vishwa Biotech, Sangamner and  
President Krishi Vishwa Foundation, Virgaon, Akole, Dist.  
Ahmednagar

**Shri. Rahul Rasal,** Progressive Farmer, Nighoj, Tal. Parner,  
Dist. Ahmednagar



# Online Three Weeks Certificate Course on Climate Smart Organic Farming February 15 to March 07, 2021



## Tentative Schedule

**Date: 15/02/2021**

**Time: 10:00 to 11:30**

### **Orientation and Theory:**

Introduction, Organic farming, Definition, Principles, Present status and scope of organic farming, History of organic farming in India and world, Necessity of organic farming in climate change scenario, Advantages of organic farming according to producers and consumers point of view

**Time: 11:30 to 01:00**

### **Theory: Potentials and strategies of organic farming**

Organic ecosystem, Impact of organic agriculture, Food security, Food safety and quality of organically produced food, Niche areas and crops for organic agriculture

**Time: 02:00 to 05:00**

**Practical:** Online visit and geo tagging characterization of organic farm

**Date: 16/02/2021**

**Time: 10:00 to 11:30**

### **Theory: Organic farming concept**

Organic farming concept, Characteristics of organic farming, Component of organic farming, Organic cycle optimization, 4P model of organic agriculture (Planning, Production, Processing and Promotion)

**Time: 11:30 to 01:00**

### **Theory: Organic farming concept**

Forms of organic agriculture, Organic farming vs. natural farming, Conventional vs. organic farming, Mixed farming, Integrated organic farming system - components and combinations of enterprises, optimization, resource recycling, low external input based farming, Low External Input Sustainable Agriculture (LEISA)

**Time: 02:00 to 05:00**

**Practical:** Preparation of solid nutrient inputs (Online demonstration)

**Date: 17/02/2021**

**Time: 10:00 to 11:30**

### **Theory: Organic farming concept**

Cropping system, mixed cropping pattern, Multiple cropping system, Inter cropping system, Crop rotation and their benefits and Necessities in organic farming

**Time: 11:30 to 01:00**

### **Theory: Organic manures and nutrient Carriers**

Bulky organic manures- farm yard manure (FYM), goat and sheep manure, green manuring, Vermicompost, Poultry manure etc.

**Time: 02:00 to 05:00**

**Tutorial:** Characterization of solid nutrient inputs

**Date: 18/02/2021**

**Time: 10:00 to 11:30**

### **Theory: Organic manures and nutrient Carriers**

Concentrated organic manures - oil cakes, bone meal, fish meal etc., Types and methods of preparation of compost and its enrichment

**Time: 11:30 to 01:00**

### **Theory: Soil fertility and productivity**

Soil fertility and productivity, Soil health indicators, Role of nutrients in crop production, Sources of plant nutrients in the soil and Role of conservation agriculture in organic farming

**Time: 02:00 to 05:00**

**Practical:** Preparation of liquid nutrient inputs, Organic formulations, Biopesticides, Biofungicides and Botanical pesticides (Online demonstration)



**Date: 19/02/2021**

**Time: 10:00 to 11:30**

**Theory: Soil fertility and productivity**

Integrated organic nutrient supply system for sustainable crop production, Different methods of crop wastes and residues management

**Time: 11:30 to 01:00**

**Theory: Soil fertility and productivity**

Biofertilizers, Integrated use of biofertilizers with traditional sources of nutrients

**Time: 02:00 to 03:30**

**Evaluation**

**Time: 03:30 to 05:00**

**Evaluation**

**Date: 20/02/2021**

**Time: 10:00 to 05:00**

**Case Study:** Waste recycling preparation of solid/liquid inputs for nutrient/pest/disease management

**Date: 21/02/2021 - Holiday**

**Date: 22/02/2021**

**Time: 10:00 to 11:30**

**Theory: Production technology**

Choice of crops and varieties in organic farming, Organic production technology of important field crops, vegetables and fruit crops

**Time: 11:30 to 01:00**

**Theory: Production technology**

Sustainable agriculture and Nutrient management through cropping systems Enhancing organic input use efficiency

**Time: 02:00 to 05:00**

**Tutorial :** Preparation of liquid nutrient inputs

**Date: 23/02/2021**

**Time: 10:00 to 11:30**

**Theory: Weed management in organic farming**

Methods of weed control in organic farming, Cultural methods of weed control viz., intercropping, crop rotations, cover crop, mulching, soil solarisation and stale seedbed, Mechanical methods of weed control, Biological control of weeds, use of pathogen/bio herbicides in weed suppression, parasitic weeds

**Time: 11:30 to 01:00**

**Theory: Pest management in organic farming**

Plant protections measures in organic farming-Cultural, mechanical and biological methods

**Time: 02:00 to 05:00**

**Practical:** Post harvest management in organic farming

**Date: 24/02/2021**

**Time: 10:00 to 11:30**

**Theory: Pest management in organic farming**

Indigenous technology knowledge (ITK) in organic farming

**Time: 11:30 to 01:00**

**Theory: Certification**

Operational structure of National Programme on Production (NPOP) and National Standards for Organic Production (NSOP). Input classification methodology

**Time: 02:00 to 05:00**

**Practical:** Online exposure visit to biofertilizers unit

<b>Date: 25/02/2021</b>
<b>Time: 10:00 to 01:00</b>
<b>Practical:</b> Online exposure visit to biopesticides unit
<b>Time: 02:00 to 05:00</b>
<b>Practical:</b> Exposure visit to integrated organic farming system module
<b>Date: 26/02/2021</b>
<b>Time: 10:00 to 01:00</b>
<b>Feedback</b>
<b>Time: 02:00 to 05:00</b>
<b>Evaluation</b>
<b>Date: 27/02/2021</b>
<b>Time: 10:00 to 05:00</b>
<b>Case Study:</b> Perception analysis in organic products from producer and consumer point of view
<b>Date: 28/02/2021 – Holiday</b>
<b>Date: 01/03/2021</b>
<b>Time: 10:00 to 05:00</b>
<b>Case Study:</b> Bio-control agents/biofertilizers/biofungicide/organic formulations multiplication and its use
<b>Date: 02/03/2021</b>
<b>Time: 10:00 to 11:30</b>
<b>Theory: Certification</b> Organic certification, Purpose of certification, Certification processes, Certification agencies in India, Organic value Chain development, Certification system in India and Export potential of organic products
<b>Time: 11:30 to 01:00</b>
<b>Theory: Certification</b> Internal Quality Standard (IQS), External inspection, Labelling, Accreditation procedures and Standards of organic farming
<b>Time: 02:00 to 05:00</b>
<b>Practical:</b> Cost of organic production of various products and crop production
<b>Date: 03/03/2021</b>
<b>Time: 10:00 to 05:00</b>
<b>Case Study:</b> Rural experience: Evaluation of organic farmers group (FPO)
<b>Date: 04/03/2021</b>
<b>Time: 10:00 to 05:00</b>
<b>Evaluation of Case Study</b>
<b>Date: 05/03/2021</b>
<b>Time: 10:00 to 01:00</b>
<b>Evaluation of Case Study</b>
<b>Time: 02:00 to 05:00</b>
<b>Group discussion and interaction</b>
<b>Date: 06/03/2021</b>
<b>Time: 10:00 to 05:00</b>
<b>Feedback</b>
<b>Date: 07/03/2021 – Valedictory Session</b>

### Course Director

**Dr. U. S. Surve**, Professor, Dept. of Agronomy, PGI & Chief Agronomist, AICRP-IFS & Co-Nodal Officer, Organic Farming Research & Training Centre & Member, CAAST-CSAWM, MPKV, Rahuri

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Research Associates, CAAST-CSAWM, MPKV, Rahuri

Jointly Organized by  
ICAR-National Agricultural Higher Education Project (NAHEP)  
**The Centre for Advanced Agricultural Science and Technology (CAAST) for  
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