

REPORT ON THE 3 MONTHS CERTIFICATE COURSE TRAINING ON POST HARVEST MANAGEMENT OF HORTICULTURAL CROPS

The three months certificate course on “Post Harvest Management of Horticultural Crops” commenced on 19th February 2021 at Central Institute of Horticulture (CIH), DAC & FW, Ministry of Agriculture and Farmers Welfare, Government of India, Medziphema and concluded on the 28th of April 2021

The objective of the certificate course is to skill the rural unemployed youths on post harvest management, food processing and value addition of horticulture crops which will enable them to be fully equipped to run and manage pack houses, cold storage and food processing unit. The trainees from Tuensang, Mokokchung, Dimapur, Mon, wokha ,Noklak and Zunheboto Districts were given theory as well as hands-on practical demonstrations on value addition of different horticultural crops grown in the region .A total of 17 trainees were selected to undergo the 3 months certificate course.

LIST OF TRAINEES FOR THE 3 MONTHS CERTIFICATE COURSE 2019-2020

SL. NO.	NAME	SEX	District
1	IMNAJUNGBA LONGKUMER	M	MOKOKCHUNG
2	KHEKIVI AWOMI	M	ZUNHEBOTO
3	K. VIKA SUMI	M	ZUNHEBOTO
4	KONGNYIU	F	NOKLAK
5	IMPANGLEMBA LEMTOR	M	DIMAPUR
6	NGAPJOI .Y .KONYAK	F	MON
7	TANGNIU.L	F	TUENSANG
8	ANETTSUNGLA	F	KOHIMA
9	SERILA . K. SANGTAM	F	TUENSANG
10	CHONGKOI . T	F	NOKLAK
11	SONGPUING. PERI	F	PHEK
12	VITOKA SUMI	M	MEDZIPHEMA
13	TAANG. L	F	NOKLAK
14	PUHOI PUDONGSHIU	F	NOKLAK
15	ZUBENI PATTON	F	WOKHA
16	WODENO	F	WOKHA
17	EPICHUMI.T .ODYUO	F	WOKHA

INAGURATION OF THE COURSE:

The course was inaugurated at CIH with a brief introductory session by Vinika K Aomi, Course coordinator & Post Harvest Technologist. Dr. N K Patle (Additional commissioner – Hort, DAC&FW and Director in charge CIH) delivered the welcome speech and encouraged the students to make the best use of their stay at CIH. He also assured the trainees of all the technical help and hand holding support in the future if they work hard. The technical Advisory committee of CIH, led by the Chairman of TAC Dr. S.D Upadhyaya also graced the inaugural as special guests. Vote of thanks was proposed by Mhasizotuo , STA.



Photo: Three months certificate course on “Post Harvest Management of Horticultural Crops” at CIH, Medziphema

CLASS SCHEDULE:

DAY	9:30 to 10:30 am	10:30 am-11.30 am	11:30am -12:30 pm	02.00 pm-04.00 pm
22 nd Feb 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/LP-1
23 rd Feb 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/TPF002& PHM/FP-1
24 th Feb 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/TPF002& PHM/FP-2
25 th Feb 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/LP-2
26 th Feb 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/LP-3
27 th Feb 2021	PHM/TPF002	PHM/TPF002	PHM/G001	PHM/LP-4
28 th Feb 2021	PHM/TPF002	PHM/TPF002	PHM/G001	PHM/TPF002& PHM/FP-3
1 st March 2021	PHM/TPF002	PHM/TPF002	PHM/G001	PHM/LP-5
2 nd March 2021	PHM/TPF002	PHM/TPF002	PHM/G001	PHM/LP-6
3 rd March 2021	PHM/TPF002	PHM/TPF002	PHM/G001	PHM/TPF002&

				PHM/FP-4
4 th March 2021	PHM/G001	PHM/G001	PHM/TPF002	PHM/LP-7
5 th March 2021	PHM/SP010	PHM/SP010	PHM/SP010	PHM/SP010
6 th March 2021	PHM/STF003	PHM/STF003	PHM/G001	PHM/LP-9
8 th March 2021	PHM/STF003	PHM/STF003	PHM/G001	PHM/LP-10
9 th March 2021	PHM/STF003	PHM/STF003	PHM/ STF003	PHM/LP-1
10 th March 2021	PHM/STF003	PHM/STF003	PHM/ STF003	PHM/STF003 & PHM/FP-5
11 th March 2021	PHM/STF003	PHM/STF003	PHM/ STF003	PHM/STF003 & PHM/FP-6
12 th March 2021	PHM/STF003	PHM/G001	PHM/STF003	PHM/STF003 & PHM/FP-7
13 th March 2021	PHM/LP-12	PHM/STF003	PHM/STF003	PHM/LP-12
15 th March 2021	PHM/G001	Presentation and Review of the trainees Group -1		
16 th March 2021	Monthly test			
17 th March 2021	Dr. Animesh Sarkar Asst Prof. SASRD	Dr. Animesh Sarkar Asst Prof. SASRD	PHM/SP010	PHM/LP-14
18 th March 2021	PHM/TMF004	PHM/TMF004	PHM/SP010	PHM/STF003 & PHM/FP-8
19 th March 2021	PHM/LP-15	PHM/TMF004	PHM/IV005	Dr. Animesh Sarkar Asst Prof. SASRD
20 th March 2021	Mushroom Cultivation	Mushroom Cultivation	PHM/IV005	PHM/LP-16
22 nd March 2021	PHM/TMF004	PHM/TMF004	PHM/FV006	PHM/LP-17
23 rd March 2021	Dr. Animesh Sarkar Asst Prof. SASRD	PHM/FV006	PHM/TMF004	PHM/TMF004& PHM/FP-9
24 th March 2021	PHM/FV006	PHM/FV006	PHM/F009	PHM/LP-18
25 th March 2021	PHM/F009	PHM/FV006	PHM/BLV007	PHM/LP-19
26 th March 2021	PHM/TPF002	PHM/FV006	PHM/BLV007	PHM/LP-20
27 th March 2021	Online class on Preparation of fruit beverages (wine) Dr. Somesh Sharma,Associate Professor			
29 th March 2021	Mr Mhasi	PHM/BLV007	PHM/BLV007	PHM/LP-22/ PHM/LP-23
30 th March 2021	PHM/TPF002	Presentation and Review of the trainees Group -2		
31 st March 2021	PHM/FV006	PHM/FV006	PHM/FV006	PHM/LP-24

1 st April 2021	PHM/PMQS012	PHM/F009	PHM/F009	PHM/LP-25
2 nd April 2021	Mr. Mhasi STA	PHM/RTV008	PHM/F009	PHM/F009& PHM/FP-10
3 rd April 2021	PHM/FV006	PHM/RTV008	PHM/F009	PHM/F009& PHM/FP-11
5 th April 2021	PHM/TPF002	PHM/F009	PHM/F009	PHM/F009& PHM/FP-12
6 th April 2021	Mr. Mhasi STA	PHM/RTV008	PHM/F009	PHM/F009& PHM/FP-13
7 th April 2021	Mr. Mhasi	PHM/F009	PHM/RTV008	PHM/F009& PHM/FP-14
8 th April 2021		Monthly test		
9 th April 2021	PHM/RTV008	PHM/F009	PHM/RTV008	PHM/F009& PHM/FP-15
10 th April 2021	PHM/FP011	PHM/RTV008	PHM/RTV008	PHM/F009& PHM/FP-16
12 th April 2021	PHM/PMQS012	PHM/BLV007	PHM/STF003	PHM/F009& PHM/FP-17
13 th April 2021	Post Harvest Management of spices including processing of spices-Dr Azeze Seyie			PHM/G001
14 th April 2021	Post Harvest Management of fruits –		PHM/PMQS012	PHM/LP-26
15 th April 2021	PHM/PMQS012	Presentation and Review of the trainees Group -3		
16 th April 2021	PHM/FP011	PHM/FP011	PHM/PMQS012	PHM/LP-28
17 th April 2021	PHM/RTV008	PHM/FP011	PHM/PMQS012	PHM/LP-29
19 th April 2021	PHM/RTV008	PHM/FP011	PHM/PMQS012	PHM/FPO11&PH M/FP-19
21 st April 2021	PHM/PMQS012	PHM/PMQS012	PHM/FP011	PHM/FPO11&PH M/FP-21
22 nd April 2021	Online class on Packaging technology of processed products (including machinery involved) Dr. M.K Salooja Professor School of Agriculture IGNOU University, Delhi			PHM/FPO11&PH M/FP-21
23 rd April 2021	Monthly test	Online class on Schemes for development of processed horticultural products with special reference to NER Dr. B.S. Negi Director Horticulture & Advisor Organic APEDA Uttarakhand		
24 th April 2021	Mr . Mhasi STA	Mr . Mhasi STA	Mr . Mhasi STA	PHM/FPO11&PH M/FP-20
26 th April 2021	Hands on demonstration on Candy preparation			

	from fruits-		
27 th April 2021	Ms. Marina STA	Ms. Marina STA	Online class on Food Safety standards , rules and regulations Dr. M.K Salooja Professor School of Agriculture IGNOU University, Delhi
28 th April 2021	PHM/FPO11&PHM/FP-21		

(NOTE: The 3 months course had to be cut short and completed by 29th April due to the state Govt's directive to close down the hostels and trainings due to the ongoing surge of COVID pandemic)

GLIMPSES ON THE ACTIVITIES DURING THE 3 MONTHS CERTIFICATE COURSE

1. PINEAPPLE AND BANANA FIBRE EXTRACTION



Collection of banana pseudo stem & pineapple leaf



Cutting and weighing of the banana pseudostem



Extraction of fibre using the fibre extractor machine



Washing and drying of banana fibre



Washing and drying of pineapple fibre



The left over extracts of banana and pineapple fibre used for vermicomposting

Products prepared using banana and pineapple fibre



2. PREPARATION OF OIL LESS PICKLE



Cleaning, washing , peeling and slicing of ingredients

Mixing of the ingredients and addition of salt

Filling in jars and addition of vinegar

3. PREPARATION OF GINGER CANDY



Washing, peeling and slicing of ginger rhizomes

Blanching, straining and drying of the ginger

Cooking with sugar (ratio 1:1), cooling and packaging

4. PREPARATION OF PEACH RTS



Washing, peeling and cutting of peaches



Grinding the peaches to pulp & juice extraction



Preparation of sugar syrup



Mixing of juice & syrup .Addition of preservative



Packaging into spout pouches

5. PREPARATION OF STRAWBERRY JAM



Washing, slicing and pulping of strawberry



Addition of sugar & pectin and cooking



Testing of end point for jam

6. PREPARATION OF PICKLES



Washing, peeling & slicing of ingredients



Washing, cleaning, drying and roasting of spices



Addition of spices, oil , salt etc and mixing . Bottling and sundrying

7. PREPARATION OF TOMATO SAUCE WITH NAGA KING CHILLI



Washing, slicing of Tomato & dried Naga king chilli



Roasting , grinding /slicing of spices and preparation of spice bag



Grinding of tomato and Naga king chilli



Straining of the pulp



Cooking of sauce by addition of sugar and immersion of spice_bag



Sterilization of jars and hot filling of sauce

8. PREPARATION OF JELLY (PAPAYA)



Washing, peeling & slicing



Addition of water, citric acid and cooking



Testing of pectin using alcohol & addition of sugar



Straining of papaya juice & addition of food grade colour



Filling into sterilized jars and cooled

9. PRACTICALS ON MEASUREMENT OF TSS & SENSORY EVALUATION OF JUICES



Checking firmness of fruits



Sensory evaluation of RTS



Checking the TSS of Fruits

10. PREPARATION OF BANANA CHIPS



Washing of raw bananas



Peeling of banana



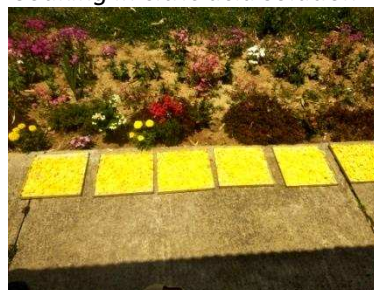
Soaking in citric acid solution



Slicing into desired slices



Addition of turmeric powder



Sun drying for 2 hours



Frying in oil



Draining excess oil and cooling



Packaging in air tight pouches

11. ONLINE CLASSES

Seven numbers of online classes were conducted by resource persons from other states having vast experiences and knowledge in the field on Post Harvest Management. The names of the resource persons for online classes along with their topics are given as under:



Sl no	Name of Resource Persons	Topic
1	Dr. Somesh Sharma Associate Professor Shoolini University Himachal pradesh	Preparation of fruit beverages (wine)
2	Dr. M. K Salooja Professor School of Agriculture IGNOU University, Delhi	1. Packaging technology of processed products (including machinery involved) 2. Food Safety standards , rules and regulations
3	Dr. B.S Negi Director Horticulture & Advisor Organic APEDA Uttarakhand	Schemes for development of processed horticultural products with special reference to NER

12. O
N

12. LINE WORK SHOPS

The trainees attended an online workshop on “Packaging technology for Fresh and processed produce” on 4th march 2021. Organized by Department of Horticulture, Haryana .



Workshop on:
Packaging Technology for fresh and processed produce
Date : 4th March, 2021
Venue: Cisco (Webex)

Organized by:
Department of Horticulture, Haryana
Small Farmers Agribusiness Consortium Haryana &
Ernst and Young LLP



Chairperson: Dr. Arjun Singh Saini,
Director General Horticulture
Convener: Mr. Sallu Jena, Team Lead, EYLLP
Coordinator: Mr. Neeru Dubey, EYLLP

Workshop schedule
Joining Link
[Click Here](#)
Meeting Access Code: 1825628279
Meeting Password: 123456

Technical Schedule: 10.30 am to 1.30 pm
Welcome address: Dr. Ranbir Singh, Joint Director, Horticulture
Key note address: **Dr. Arjun Singh Saini, DG Horticulture**
Dr. Tanveer Alam, Director, Indian Institute of Packaging, New Delhi: Packaging technology for fresh fruits and vegetables.
Mr. Makdum Jahan, Veripack, India Limited, Mumbai, Modified Atmosphere Packaging for shelf life extension
Mr. Anupam Chaudhary: Bajaj Process Pack, Packaging technology for processed produce
Mr. Arya Vinayakam, EYLLP: Packaging, Labelling and Branding
Dr. Vijay Tokala, PEF, USA, Objectives and Principles of packaging
Dr. Neeru Dubey, EYLLP, Specific packaging for selected crops

13. REVIEW MEETINGS ON THE PROGRESS OF THE TRAINEES



Director CIH, Dr. N. K Patle video conferencing with the trainees and taking update on their progress

WAY FORWARD:

The trainees of the 3 months certificate course would be given hands on technical support in their food processing ventures even after the completion of the course. Constant updates will be taken through video conferencing with all the trainees. It has also been planned that the trainees would each become trainers at their respective places/villages and the Institute would fully cooperate to organize such on- site trainings. Advanced/ refreshers training would also be conducted in the days to come.



PRESS RELEASE:



Nagaland Post 24th February 2021