

Profile

Department of Post Harvest Management



College of Horticulture and Forestry

Acharya Narendra Deva University of Agriculture and Technology,
Kumarganj, Ayodhya-224 229 (U.P.), India

Genesis of the Department

Initially the courses on Post Harvest Management and value addition in horticulture crops were offered from the Department of Horticulture, which was established with the inception of the University in the College of Agriculture. Later, the College of Horticulture and Forestry was created, and Department of Horticulture became the department of the College of Horticulture & Forestry. The Department of Post Harvest Technology came into existence in 2006 with the splitting of the Department of Horticulture into three departments viz. Fruit Science, Floriculture and Landscape and Post Harvest Technology. The post-harvest courses to undergraduate students of B.Sc.(Ag), B.Sc.(Home Science) and B.Sc.(Horticulture) degree programmes were offered from the department. In 2021, the department was renamed as Department of Post Harvest Management according to ICAR'S BSMA Committee recommendations. M. Sc. (Horticulture) in Post-Harvest Management degree programme was started in the academic session 2022-23 and first batch is likely to get degree in 2024. In addition to teaching and extension, the department is also engaged in development of technology for value addition to horticultural crops particularly aonla, bael, ber, phalsa, karonda, wood apple, ginger, aloe vera and other plants of medicinal important.

Vision

‘To meet out challenges of post-harvest horticulture’


Mission




‘To develop technology and human resource for post-harvest management of horticultural produce’

Objectives

- To Develop Human Resource.
- To carry out research on post-harvest handling and value addition to horticultural produce.
- To develop and innovate commercial post-harvest technology for university mandate horticultural crops.
- To reduce the post-harvest losses and thereby increase farmer's income and conserve resources.
- To provide advisory, consultancy and expertise extension services to concern stockholders and end users.

Faculty Profile

Name	Dr. Bhagwan Deen	
Designation	Professor & Head of Department	
Qualification	Ph.D.	
Experience Years	28	
No. of Ph.D. students guided	8	
Publications	18	
Award/Achievement	JRF, NET, ARS, PCS (A), UP DASP, TO-KVK	
Area of Specialization	Post Harvest Management and Fruit Production	

Name	Dr. Jagveer Singh	
Designation	Assistant Professor	
Qualification	Ph.D.	
Experience Years	5	
Publications	34	
Award/Achievement	International fellowships, Israel, Horticulture-MDPI	
Area of Specialization	Production Technology of Citrus, Bael, and Fruit Molecular Breeding and Laboratory Techniques	
Name	Dr. Atul Yadav	
Designation	Assistant Professor	
Qualification	Ph.D.	
Experience Years	3	
Publications	22	
Award/Achievement	Best Thesis Award UPCAR-UPAAS, Lucknow, ICAR-NET	
Area of Specialization	Production Technology of Aonla, Jackfruit, and Papaya Fruit Crops. Nursery Management of Fruit Crops and Post Harvest Management	
Name	Dr. Kuldeep Pandey	
Designation	Assistant Professor	
Qualification	Ph.D.	
Experience Years	2	
Publications	10	
Award/Achievement	Chancellor's Gold medal in UG, ICAR - JRF/NTS, IARI -SRF, DST-ITS	
Area of Specialization	Production Technology of Mango, Litchi and Jamun, Physiology, Tissue Culture and Molecular Breeding of Fruit Crops. Laboratory Techniques	
Name	Dr. Hitesh Kumar	
Designation	Assistant Professor	
Qualification	Ph.D.	
Experience Years	3	
Publications	8	
Award/Achievement	NET, JRF, SRF	
Area of Specialization	Postharvest Technology	

Degree Program and Courses

1. UG Courses for B.Sc. (Ag) and B.Sc. (Horticulture) degree programme

S.No.	Course Code	Course Title	Credit hours
B.Sc. (Honours) Agriculture			
1	HORT-321	Postharvest Management and value addition of Fruits & Vegetables	3(2+1)

B.Sc. (Honours) Horticulture			
2	PHM-321	Postharvest Management of Horticultural Crops	3(2+1)
3	PHM-322	Processing of Horticultural Crops	3(1+2)
4	ELP-412(H)	Processing of Fruits and Vegetables for Value Addition	10(0+10)

2. Course for M.Sc. (Horticulture) PHM degree programme

Core Courses (Compulsory)			
S. No.	Course Code	Course Title	Credit Hours
1.	PHM-511	Postharvest Management of Horticultural Produce	3(2+1)
2.	PHM-512	Principles and Methods of Fruit and Vegetable Preservation	3(2+1)
3.	PHM-513	Processing of Horticultural Produce	4(2+2)
4.	PHM-521	Postharvest Physiology and Biochemistry of Perishables	3(2+1)
5.	PHM-591	Master's Seminar	1(0+1)
6.	PHM-599	Master's Research	30(0+30)
Optional Courses			
7.	PHM-514	Laboratory Techniques in Postharvest Management	3(1+2)
8.	PHM-515	Packaging and Storage of Fresh Horticultural Produce	2(1+!)
9.	PHM-516	Packaging and Storage of Processed Horticultural Produce	2(1+1)
10.	PHM-522	Quality Assurance, Safety and Sensory Evaluation of Fresh and Processed Horticultural Produce	3(2+1)
11.	PHM-523	Functional Foods from Horticultural Produce	2(2+0)
	PHM-524	Marketing and Entrepreneurship in Postharvest Horticulture	2(1+1)
Common Course (Non-credit)			
12.	PGS-511	Library and Information Services	1(0+1)
13.	PGS-512	Basic Concept in Laboratory Techniques	1(0+1)
14.	PGS-513	Agricultural Research, Research Ethics and Rural Development Programme	1(1+0)
15.	PGS-521	Intellectual Property and its Management in Agriculture	1(1+0)
16.	PGS-522	Technical Writing and Communication skills	1(1+0)
Value added Course (For any interested student of the University)			
17	PHM-001	Fruits and Vegetables Processing	30 hrs

Departmental Facilities

- Well-furnished PG classroom 1
- Seminar cum PG-Classroom-1
- Fruits and Vegetable Processing Laboratory-2
- Equipped Quality Control Laboratory-1
- Sharing of Main Experiment Station of the Fruit Science Department for field experiment and practical activities.

Projects, Training and Seminar

- Training on “Capacity Building on Processing of Aonla Fruits for Value Addition” (28 to 30 -1-2020)



- Webinar on ‘Prime Minister Formalization of Micro Food Processing Enterprises (PMFME) Scheme’ with VOCAL FOR LOCAL theme on 22-10-2020

- Project Entitled-“Capacity Building and Technology Demonstration on Processing of Local Fruits and Vegetables for Alternate Livelihood of Tharu Tribe Women” (2017-23)



Research and Technology Developed

- 1- Our research on wood apple is used by Australian company RAW SIP for preparation of wood apple beverages-

College of Horticulture & Forestry
Acharya Narendra Deva University of Agriculture & Technology,
U.P., India

Our Research on Wood Apple Is useful to An Australian Company Raw Sip Processing Wood Apple

Wood Apple Nectar
4 Pack \$20 AUD

boost you up again. WOODAPPLE nectar is just the drink to give you that "Boost" you were looking for to make you feel relaxed and revitalized. It has all the natural ingredients which will transform your taste buds and improve your mood. It will give you the edge that you needed and it will be a rewarding bonus to your busy day. At RAW SIP, we strive hard to create a delicious product to help you through your busy lifestyle.

Description of the WOODAPPLE product.

We weave an amazing concoction of fruit flavours to provide you with a taste sensation. RAW SIP'S WOODAPPLE nectar is a sweet, tasty drink and our first fruit nectar in our range. We, at Raw Sip, mix the fruit of the Wood apple with palm treacle and coconut milk to blend our nectar into the perfect product to be consumed by you. RAW SIP only provide the best flavours and these are sourced from natural and freshest ingredients. We will ensure that you are purchasing a high quality product from us here at RAW SIP'S WOODAPPLE nectar has to be tried and tasted to be believed that it lasts in your memory. No artificial colours or flavours, Non-Carbonated and Gluten Free.

WOODAPPLE NECTAR 4 PACK \$20.00 AUD
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shipping within Australia only

Study on Preparation and Storage Stability of Wood Apple RTS Beverage

Awadhesh Kumar and Bhagwan Deen
Department of Horticulture, College of Horticulture and Forestry,
Acharya Narendra Deva University of Agriculture & Technology, Meerut, Uttar Pradesh,
India

ABSTRACT

Study was investigated on the preparation of ready to eat wood apple RTS beverage prepared from 20 per cent pulp, 12 per cent total soluble solids and 6.5 per cent water and stored for 60 days during refrigeration. The formulated RTS was found to contain lower levels of pH, titratable acidity and total acid compared to fresh fruit. The average pH of RTS was 3.51, soluble

Raw Sip- WoodApple.
Introducing an exciting, brand new, unique beverage in Victoria.

Our Product

RAW SIP'S WOODAPPLE is an explosion in the mouth and you will be transformed with the taste. RAW SIP'S products are just new, raw and sensational and with WOODAPPLE, this will be one of the products that will change the way you think about nectar's today.

What is Wood Apple?

Wood apples are native to South East Asia and look like small coconuts. Wood apples have a hard exterior like a coconut, but have a sweet, brown fruit inside the shell, which is the delicious fruit that is used to develop WOODAPPLE nectar. Wood apples were used in Asia in the past as a cooling drink for many benefits. The first scholar, Kautilya (302 BC-273 BC) mentioned wood apple in his accounts and military commander and poet, Chanakya (350-283 BC) listed wood apple to recover medicinal remedies. Wood apples have been used for traditional medicines since ancient times. All parts of the plant, including the stems, bark, root, leaves and seeds have been used for traditional medicines since ancient times.

Our Student Dr. Awadhesh Kumar did research on Post Harvest Technology of Wood Apple under supervision of Prof. Bhagwan Deen during his Ph.D. degree programme. The dissertation is published in Germany and findings are useful to an Australian company Raw Sip processing & marketing Wood Apple Nectar.

Prof. Bhagwan Deen
Advisor >

Dr. Awadhesh Kumar
< Researcher

2- Technology developed for value addition to Aonla, bael, and karonda



3- Processing Technology developed for blend beverages preparation.



Future Planning

- To fill the vacant post
- To start PhD degree programme