

Curriculum vitae (CV) of (Dr. Neeru Dubey)

1. **Name:** Dr. Neeru Dubey

2. **Date of Birth:** 24th April, 1975

Nationality: Indian

3. **Education:**

Name of Institution/ college/ universities	Degree	Month/ Year of obtainment
Allahabad Agriculture University	PhD. in Horticulture with specialization in Post-Harvest Technology	2003
G.B. Pant Univ. of Agriculture & Technology, Pantnagar, Uttarakhand	M. Sc. Agriculture (specialisation- Horticulture)	1997
Lucknow University	Bachelor of Science	1995

4. **Membership of Professional Associations:**

- Indian Society of Horticultural Sciences, Uttarakhand
- Society of Arid Horticulture, Bikaner, Rajasthan
- Society of Underutilized Fruit Crops, Gorakhpur, Uttar Pradesh
- Reviewer: MDPI Journals, China, Journal of Horticulture and Postharvest research, Iran.

5. **Publications**

Research Publications

- Dubey, N. and Raman, N.L.M. 2016. Low cost insulation for coolrooms using 'CoolBot'. Acta Hort. (ISHS) 1120:279-284 Dubey, N. and Raman, N.L.M. 2016.
- Raman, N.L.M. and Dubey, N. (2016). Rural women empowerment: horticulture to improve the livelihoods of communities. Acta Hort. 1126, 199-204
- Sunil Saran, Neeru Dubey, Vigya Mishra and Shailendra K. Dwivedi and Naga Laxmi M. Raman 2012 Evaluation of shelf life and different parameters under CoolBot cool room storage condition Progressive Horticulture Volume 45 Number 1 March 2013 Pp-115-121
- Neeru Dubey and Naga Laxmi M.Raman. 2013 Low cost storage technology for small scale farmers. 2013. Indian Horticulture. July-Aug, 2013
- Neeru D., Susanta R., Sunil S. and NLaxmi R.,2013 "Evaluation of efficacy of zero energy cool chamber on storage of banana (Musa paradisiacal) and tomato (Solanum lycopersium) in peak summer season", Current Horticulture, 1(2): 27-31, July-December 2013, pp27-31.
- Dadlani N.K. and Dubey Neeru 2002 Exploitation of ornamental varieties of Banana Souvenir Article. In. Global conference on banana and plantain.28-31st October 2002
- Dubey, A.K; Singh, D.B; and Dubey, Neeru. 2002 Crop regulation in guava (Psidium guajava L.) Cv Allahabad Safeda Progressive Horticulture 34 (2): .pp 200-203.
- Pathak, Neeru and Tiwari, J.P. 2002 In vitro cloning of Draceana concinna KUNTH. Progressive Horticulture. 38 (2): .pp 201-203.
- Dubey, A.K; Singh, D.B; and Dubey, Neeru. 2001 Effect of foliar spray of urea on fruit yield and quality of guava (Psidium guajava L.). Progressive

Horticulture 33 (1) pp 37-40

- Pathak, Neeru; Santram; Singh, C.P. 1999 Off season grafting in Mango (*Mangifera indica* Ram.) Presented in international symposium on Mango, 21-23 June 1999, Central Institute of Sub Tropical Horticulture, Lucknow

Book Chapters

- Vigya Mishra, Neeru Dubey, Ghanshyam Abhrol. Sodium Hypochlorite In Postharvest Disinfection of Fruits and Vegetables. 1st Edition. Elsevier Academic Press. p 322.
- Neeru Dubey and Vigya Mishra Cushioning materials for fruits, vegetables and flowers Innovative packaging for fruits and vegetables-Strategies for safety and quality maintenance In Post-harvest biology and technology series-11 Apple Academic Press ISBN Hard 978-1-77188-597-3 eISBN: 978-1-315-14306-4. Publication date: January, 2018
- Vigya Mishra, Neeru Dubey and Simple Kumar Nano-Enabled Packaging of Food Products. Vigya Mishra, Neeru Dubey and Simple Kumar Innovative packaging for fruits and vegetables-Strategies for safety and quality maintenance. Apple Academic Press. ISBN Hard. 978-1-77188-597-3 eISBN: 978-1-315-14306-4: Publication date: January, 2018
- Neeru Dubey, Vigya Mishra and Deepsikha Thakur Plant based antimicrobial formulations. In Postharvest Disinfection of Fruits and Vegetables 1st Edition. Ed by Md. Wasim Siddiqui. Elsevier Academic Press. p 322

Books

- NLM Raman and Neeru Dubey, 2018. Viable postharvest management practices: Vegetables. Aiknik Publications, Delhi. India. Publication date: October, 2018
- Neeru Dubey and NLM Raman, 2018. Post-harvest management of fruits: Existing practices and recommendations, Aiknik Publications, Delhi. India. Publication date: October, 2018.

Training Manuals/ Articles

- Neeru Dubey (2012). Use of coolbot technology for construction of low-cost low capacity cold storage on farms. Training manual on Post Harvest Technology, Processing and Cold Chain Management, AICPHT&CCM, Amity University. P- 112-116
- SK Roy, N Dubey, SK Dwivedi, NL Raman and N Verma (Eds.) (2012). Training manual on Post Harvest Technology, Processing and Cold Chain Management, AICPHT&CCM, Amity University, pp. 124
- SK Roy, N Dubey and SK Dwivedi (2012). Training and Demonstration- 1: Assessment of physiological changes and loss of quality. In: SK Roy, N Dubey, SK Dwivedi, NL Raman and N Verma (Eds.). Training manual on Post Harvest Technology, Processing and Cold Chain Management, AICPHT&CCM, Amity University. P- 24-28
- SK Roy, N Dubey and SK Dwivedi (2012). Training and Demonstration- 2. In: SK Roy, N Dubey, SK Dwivedi, NL Raman and N Verma (Eds.). Training manual on Post-Harvest Technology, Processing and Cold Chain Management, AICPHT&CCM, Amity University. P- 37-40.

6. **Other Trainings:**

Name of Institution/ college/ universities	Training Topic	Month/ Year
University of California, Davis	Post-Harvest Short Course	10- 21 June, 2010
University of California, Davis	Workshop on "Identification of Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Horticultural Farmers in Sub-Saharan Africa and South Asia"	10-12 November, 2009
Amity University, Noida, UP, India	Training Workshop on Postharvest Technology and Cold Chain Management	20-22, March, 2012
Jointly organised by Nong Lam University, Hochiminh City, Vietnam and Centre for Underutilized Crops, University of Southampton funded by Leverhulme Trust, UK,	Training Workshop on Characterization of Fresh and Processed Fruit Quality	23-25 July 2012
University of Peradeniya, Kandy, Sri Lanka	International workshop on "Research Training Workshop on Facilitating uptake by SMEs of Research on New Processing Technologies for Underutilized Fruits"	13-15 th May, 2013

7. **Countries of Work Experience:** India, USA, Vietnam, Sri Lanka

8. **Employment Record:**

From (Year)	To (Year)	Employer	Position Held
Nov 2017	To Present	Amity University	Associate Professor and Deputy Director
Sept 2016	Nov 2017	Amity University	Associate Professor
Nov 2013	Sept 2016	Amity University	Assistant Professor (Grade-III)
Oct 2011	Oct 2013	Amity University	Assistant Professor (Grade-II)
Sept 2009	Oct 2011	Amity University	Senior Lecturer
Sept 2007	Aug 2009	Concept Agrotech Consultant Limited	Manager
Jan 2003	Aug 2007	Global Agrisystem Private Limited	Assistant Manager
Sept 2002	Jan 2003	DAKSH Hortitec Private Limited	Horticulturist
Feb 2001	May 2002	Netaji Subhas Institute of Technology (NSIT)	Jr Horticulturist
Dec 1999	Dec 2000	ICAR-National Bureau of Plant Genetic Resources (NBPGR)	Research Associate

9. Detailed Tasks Assigned

- Undertake preliminary meetings with the Client for understanding the project objective and client expectation
- Guide the team in designing study approach and methodology, timelines and deliverables
- Lead the coordination for organizing stakeholder seminar for discussion & finalization of the study framework
- Guidance and supervision to the team for conducting of the overall study in accordance with the agreed project scope and in timely manner
- Review & finalization of project related reporting documents for submission to MoFPI
- Coordination and organizing of seminar for discussion on the study findings and incorporation of comments from experts in the study report

10. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

1. **Name of assignment or project:** Study for 'Identification of Appropriate Postharvest Technologies for Improving Market Access and Incomes for Small Farmers in Sub-Saharan Africa and South Asia' in collaboration with the World Food Logistics Organization

Terms of Reference: To systematically assess post-harvest losses for key horticultural crops in selected countries in Sub-Saharan Africa and South Asia (including India) and to identify post-harvest technology interventions that would address the identified priority problems to reduce the food and value losses.

Year: 2009-2010

Location: Uttar Pradesh & Uttarakhand

Client: Bill & Melinda Gates Foundation

Main project features: Amity University led the study implementation in India. The project involved study of post-harvest losses for different common food crops that have high nutritional value or potential for value addition or additional income generation for farmers

Positions held: Resource Person

Activities performed:

- Sampling and measurement of post-harvest losses and quality attributes for 4 selected fruit and 10 selected vegetable crop at various levels from production to post harvest stage
- Interview of the key players along the value chain to understand the post-harvest handling practices and identify the factor that contribute to physical and quality losses as well as decrease in market value
- Systematic assessment and characterization of post-harvest losses of the selected 14 horticultural crops by using field based measurements at the farm, wholesale and retail markets, and a modified Commodity Systems Assessment Method.
- Compilation of Commodity System Assessment Methodology reports
- Assessment of gaps /constraints and recommendation of technological support requirements

- Transfer of set of technologies to the farmer's field to reduce waste and improve farmer income and cost benefit ratios were calculated
- Convergence with other ongoing programmes for promotion of suitable technologies such as linkage of farmers with Zero Energy Cool Chamber (ZECC) for reduction of post-harvest losses in Okra and promotion of commodity export.

2. Name of assignment or project: Study on Product specific protocol development for selected horticultural commodities

Terms of Reference: To quantify the post-harvest losses at various levels of handling the produce harvesting, field handling, wholesaler, transporter and retailer and to enumerate the existing gaps in supply chain infrastructure, and current practices applied by various stakeholders at different steps. Furthermore, to prepare a comprehensive knowledge document detailing existing practices vis-à-vis better practices for the specified crop and enumerate the current and better practices

Year: 2014-2016

Location: Uttar Pradesh, Uttarakhand, Delhi, Punjab, Haryana

Client: National Centre for Cold Chain Development, Government of India

Main project features: The projects would cover post-harvest loss the areas of value addition of horticultural crops, assessment of losses, pre and post-harvest management practices, usage of better practices and organic cultivation of the produce in the country

Positions held: Principal Investigator

Activities performed:

- Preparation of questionnaires and conduct of field survey for 23 selected crops
- Interaction with stakeholders across the value chain including farm gate (point of harvest), post-harvest handling points including collection / aggregation centre, transportation, Wholesale point to understand the commodity flow and assessment of food loss
- Suggestions on the best practices for each of the crop for post-harvest management and reduction in losses
- Separately conducted an in-depth study on supply chain of mango from farm to the market

3. Name of assignment or project: Study of 'Coolrooms & Cool Transport for Small Scale Farmers' in collaboration with University of California, Davis

Terms of Reference: Development and promotion of alternative low cost cold storage facilities and refrigerated transportation for use/ access by small scale farmers to reduce post-harvest losses

Year: 2011 - 2012

Location: India

Client: Horticulture Collaborative Research Support Project - USAID (HortCRSP-USAID)

Main project features: The project involved testing effectiveness of innovative cooling device system and combination of materials used to create a small-scale cooler out of a well-insulated room. The main focus of the project was to develop a prototype low cost storage structure for the small and marginal farmers

Positions held: Principal Investigator (India)

Activities performed:

- Design and construction of low cost cool chamber using selected insulating material
- Testing the efficacy of the system
- Testing of shelf life and other parameters for different fruits and vegetables in the constructed cool chambers for enhancing the shelf-life and reduction of losses

- 4. Name of assignment or project:** Study to "Evaluate the Effect of Ripelock Technology on transit and market life extension of Elite Indian varieties of Mango, Banana and Papaya" in collaboration with Rohm & Haas Pvt Ltd

Terms of Reference: To evaluate the effect of Ripelock Technology on transit and market life extension of selected varieties of Mango, Banana and Papaya fruits

Year: 2012 -2014

Location: India

Client: Romm Hass, USA

Main project features: The project involved use of 1-methylcyclopropene which is an ethylene action inhibitor that interacts with ethylene receptors and thereby prevents ethylene-dependent responses in many horticultural commodities. The mango varieties tested were Alphonso from Ratnagiri, Kesar from Gujarat, Dashehari and Chausa from Uttar Pradesh. With this treatment the shelf life was enhanced upto 31 days. Best results were noticed in Kesar and Alphonso mango.

Positions held: Resource Person

Activities performed:

- Collection of different varieties of mango, banana and papaya
- De-sapping/ washing/ air drying/ treatment of the collected fruits for purpose of experimentation and research study
- Packaging of fruits under different conditions for purpose of study and evaluation of effect of ripelock technology
- Recording of observation for evaluation of different visual and physiochemical parameters
- Statistical analysis of the collected data to estimate the losses and assessment of the effect of technology on extending shelf life of the selected varieties of the fruits

- 5. Name of assignment or project:** Research study on "Standardized the techniques of preparing a fruit leather by blending two indigenous fruits i.e. Bael (Aegle marmelos) and Aonla (Phyllanthus emblica) pulp"

Terms of Reference: To standardize the techniques for preparing fruit leather by blending bael and aonla pulp and evaluation of nutritional and quality parameters of the product

Year: 2011 – 2012

Location: India

Client: Leverhulme Trust, U.K

Main project features: The project involved conduct of in-depth research for standardizing processing techniques and processes for preparation of fruit leather by blending bael and aonla pulp and evaluation of nutritional and quality parameters of the product. Different fruit bars were prepared using different ratios of bael, aonla and other additives.

Positions held: Co-Principal Investigator

Activities performed:

- Study of the physico-chemical composition of bael and aonla fruits
- Determination of the optimum ratio of aonla and bael pulp in blended fruit leather
- Standardization of the potassium metabisulphite concentration in fruit leather
- Identification of the ideal packaging material to maintain storage quality of the leather
- Preparation of different agro products such as fruit bars with different ratios of the Bael, Aonla and sugar etc.
- Evaluation of the prepared agro-products (in India and Vietnam) to get the best blend ratio.

6. Name of assignment or project: Partner for implementation of project entitled "International Network on Preserving safety and nutrition of indigenous fruits and their derivatives"

Terms of Reference: The network objective was to promote knowledge transfer and foster cooperation for promotion of latest techniques in post-harvest technologies and cold chain management of indigenous fruits and their products, development of human resources between partner countries and different types of organization and to promote utilization of underutilized fruits

Year: 2011-2012

Location: India

Client: Leverhulme Trust, U.K

Main project features: The project involved conduct of series of workshops, covering aspects of knowledge mapping and promotion of post-harvest and cold chain technologies, chemical and nutritional characterization, food safety standards, uptake and dissemination. Besides India, the project involved network Collaborators from 6 more countries including - UK, France, Bangladesh, Sri Lanka, Cambodia and Vietnam

Positions held: Collaborator

Activities performed:

- Conducted workshop involving training sessions and demonstrations on "Post-Harvest Technology" and "Cold Chain Management" covering a host of contemporary issues and related topics to control losses from farm to fork. Some of these included:
 - Influence of post-harvest operations, packaging and storage on the quality of fruits
 - Different methods of processing, preparation of processed products and minimal processing of fruits
 - Low Cost Techniques of Storage: Construction and operation of Zero Energy Cool Chamber
 - Biotechnological approaches in post-harvest management
- Training of over 25 delegates from Research and Government organisations, Academic and Educational institutions, private players and others
- Participated in similar type of training conducted in other participating countries
 - Training Workshop on Characterisation of Fresh and Processed Fruit Quality jointly organised in Vietnam by Nong Lam University, Hochiminh City, Vietnam and Centre for Underutilised Crops, University of Southampton
 - Training Workshop on facilitating uptake of New Processing Technologies for Underutilised Fruits by SMEs by University of Paradeniya, Sri Lanka
 - Research Workshop on Valorisation of Traditional Processing of Indigenous Fruit in Cambodia

7. Name of assignment or project: E-learning Programme on Post-Harvest Management for South Asia in collaboration with Post Harvest Education Foundation, USA

Terms of Reference: Design, development and implementation of e-learning system to impart knowledge and learnings on important aspects related to post harvest management of perishable fruits and vegetables, targeting reduction in post-harvest losses in South Asian countries

Year: 2012-2014

Location: India

Client: Post-harvest Education Foundation

Main project features: The programme focus on imparting training and capacity building of young post-harvest professions from around the world, particularly South Asian countries by providing online access to wide range of learning material on post-harvest management of fruits and vegetable crop. The platform also facilitates web-based interactive sessions for discussion of various related topics, sharing of links and ideas and e-mentoring assistance.

Positions held: Collaborator

Activities performed:

- Design and development of an integrated e-learning programs on post-harvest management of fruits and vegetables in collaboration with Post-harvest Education Foundation, USA.
- Inviting of applications, screening and enrolment of qualified trainees for the programme from different South Asian countries.

- Development of 10 e-learning modules
- Implementation of the programme from e-learning centre of the Amity University
- Bridge the knowledge/ skill gap and improve the factors affecting losses by imparting e-training and mentoring assistance on various aspects of post-harvest management of the produce

8. Name of assignment or project: ASI-Amity University CoolBot Project

Terms of Reference: Setting up of low cost cooling chamber at Sultanour Mandi in UP

Year: 2014 – 2015

Location: Uttar Pradesh

Client: Agribusiness System International (ASI)

Main project features: Amity was contracted by ASI, under Sunhara Prject, to construct a CoolBot fitted cool room in hori-retail market in Sultanpur, Uttar Pradesh for the purpose of utilization by the farmers as well as the retailer for short duration storage of the produce, rather than engaging in distress sale or dumping of the produce.

The farmers and retailers from the mandi used the created Coolbot cool room for storage of the produce at set temperature and humidity and marketing the produce over extended time. The storage fee was fixed at Rs 5 per crate basis, and the retailers could sell the produce as per the demand. Reportedly, the utilization of the facility has resulted in reduction of mandi level loss by 1-2%. The retailers at the Sultanpur are earning around Rs. 25,000/- per month with 25 days operational period and 50 % capacity utilization while the net earning is around 16,500/- per month.

Positions held: Principal Investigator

Activities performed:

- Establishment of cool chamber at Sultanpur retail mandi to reduce mandi level losses
- Testing the system efficacy
- Record and analysis of losses observed during storage at mandi and impact on income earnings of farmers/ retailers.

9. Name of assignment or project: Rural Bio-Resource Innovation-Application to uplift the Socio-Economic Status of Farmers and Entrepreneurs of Uttar Pradesh

Terms of Reference: To provide post-harvest management training and demonstration to the farmers and entrepreneurs to address issues pertaining to post-harvest loss reduction, proper handling and marketing of the fresh produce, primary processing to reduce spoilage, utilization of the waste.

Year: 2012-2015

Location: Uttar Pradesh

Client: Department of Biotechnology, Government of India

Main project features: The project involved setting up of fully equipped Common Facility Centres (CFCs) across three selected sites for imparting hand-on training to the farmers and entrepreneurs on three targeted areas including - post harvest management of the locally produced fruits and vegetable, promotion of bio-control for crop disease and pest management and promoting cultivation of green and nutritious animal feed

Positions held: Co-Principal Investigator

Activities performed:

- Preliminary survey and site selection for establishment of Common Facility Centres
- Setting-up of the Common Facility Centers (CFCs) at selected three sites in Uttar Pradesh - Krishi Vigyan Kendra in Gautam Budh Nagar; Krishi Vigyan Kendra in Ghaziabad and Gayatri Suman Farm and Nursery in Bulanshahar.
- Equipping of the CFCs with adequate equipments and other necessities for processing
- Setting up of processing laboratory and other ancillary facilities such as ZECC unit, Vermicompost, Bio control unit at the CFCs
- Mobilization and capacity building of SMEs/farmers/villagers through participation in the training programme
- Coordination with different project sites for organizing farmer and entrepreneur training and demonstrations at the CFC
- Conducted 16 training programs covering the three subject areas under the project in the established CFCs by AICPHT&CCM
- Designed and compiled 13 training manuals in the form of modules on the subject of post-harvest technology
- Handholding assistance to the farmers for setting-up and management of small scale units for processing peas, tomatoes and setting up of Zero Energy Cool Chamber for extended storage of the produce

10.Name of assignment or project: CSAM study for Tomato and Maize on the Application of Best Practices in Post-harvest Loss Assessment and Mitigation

Terms of Reference: Value Chain Analysis to understand the relationship between various stakeholders in selected value streams that connect source areas, channels of distribution and designated end-markets using Modified Commodity Systems Assessment Methodology to quantify postharvest volume and value losses within selected value chains

Year: 2016 – 2017

Location: Punjab and Maharashtra

Client: Agribusiness Associates Inc., USA funded by World Bank Group

Main project features: Identifying hotspots of loss, potential intervention points, and best-practice mitigation measures, relying first on generally accepted practices and secondly ground-truthing impacts and feasibility through dialogue with relevant growers, producer groups, and key informants. Recommendations, in terms of technologies or systems-oriented solutions that will address these losses at critical points within the postharvest chain, will be formulated, along with cost/benefit analyses for the recommended interventions and investments. Measurement and assessment of losses along the post-harvest value chain.

Positions held: Independent Consultant

Activities performed:

- CSAM study for Tomato and Maize
- Assessment of post-harvest losses along the value chain
- Value chain analysis at different stakeholders level
- Summarizing in the final report (backed by country annexes), the proposed methodology, its implementation, the evidence obtained, related analyses and recommendations

11. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications and experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged in the work.

4th November, 2019

Neeru Dubey
04/11/2018

Dr Neeru Dubey