

**Dr. Sweta Rai**  
Assistant Professor,  
Department of Food Science & Technology  
College of Agriculture

1. **Faculty qualifications:** Ph.D.
2. **Designations:** Assistant Professor
3. **Photographs:**



4. **E-mails and associated phone number:** [swetafoodtec@gmail.com](mailto:swetafoodtec@gmail.com), 9258058716
5. **International exposure as Researcher/Teacher at University Level:** Post-Doctoral training at Washington State University, Pullman, USA during 05/12/2022 to 08/03/2023 under IDP-NAHEP.
6. **Research project:**

Title of Project	PI & Co-PI	Total budget Rs in lakh	Collaborative Centre / Lead Centers
“Effect of Bovine Milk supplementation on drug induced colitis and gut microbiota in mice” (2024-2027) <b>Funded by:</b> Uttarakhand Council for biotechnology	<b>Dr Sweta Rai, Asst Professor, PI</b> Dr. Aman Kamboj	6.30	Department of Food Science & Tech, GBPUA&T., Pantnagar
Developing Nutrient - Enrichment Technologies & Products of Commercial Value in a Nutraceutical Food Crop, Buckwheat (Fagopyrum spp.) (2023-2026) <b>Funded by:</b> DBT, Govt. of India	Dr S.K. Sharma, Professor, PI <b>Dr Sweta Rai, Asst Professor, Co-PI</b>	99.70	1. Lead Centre: Bennett Univ, Greater Noida 2. Centre-I: GBPUAT, Pantnagar 3. Centre-II: ICAR-NBPGR, Regional

			Station, Shimla
Undertaking Capacity Building Programme of Prime Ministers Formalization of Micro Food Enterprises (PMFME) Scheme as State Level Technical Institution (SLTI) for Uttarakhand (2021-25)  <b>Funded by:</b> Government of India, MoFPI, New Delhi, Through SNA	Dr S.K. Sharma, Nodal Officer Dr Prabhakaran, Dy. Nodal Officer Dr A Kushwaha, Dy. Nodal Officer Dr Vipul Gupta, Dy. Nodal Officer Dr Anil Kumar, Dy. Nodal Officer <b>Dr Sweta Rai, Dy. Nodal Officer</b> Dr Sabbu Sangeeta, Dy. Nodal Officer	<b>180.34</b>	Department of Food Science & Tech, GBPUA&T., Pantnagar
Multilocation Trials for Providing Test Samples to Estimate Residue of 0.014% 1- Methylcyclopropane (Smart Fresh Inbox Sachet) on Apple as Post-harvest Treatment Under Indian Conditions (2021-22)  <b>Funded by:</b> AgroFresh Ltd., USA through M/s Tropical Agrosystem (India) Pvt. Ltd., Chennai	Dr S.K. Sharma, Professor, PI  <b>Dr Sweta Rai, Asst Professor, Co-PI</b>	<b>7.05</b>	1. Lead Centre: GBPUAT, Pantnagar  2. Centre-I: Dr YSPUHF, Solan  3. Centre-II: SKUAST (K), Srinagar

## 7. Research publications:

S.No.	Title of Journal, Volume, Issue, Page Nos., Years	Title of the Paper	Whether peer reviewed or Publication in SCI journal/Impact Factor, if any
1	Journal of Food Science and Technology 49 (6) 786-789. (2012)	Quality characteristics of bread produced from wheat, rice and maize flours	<b>Impact factor: 2.3</b>
2	Journal of Food Science and Technology 51(4):785-789. (2014)	Quality characteristics of gluten free cookies prepared from different flour combinations	<b>Impact factor: 2.3</b>
3	Frontier in Nutrition 5:116.	Gluten-Free Products for Celiac	<b>Impact factor: 4.0</b>

	(2018)	Susceptible People (Review article)	
4	International Journal of Food Science. doi.org/10.1155/2024/7127635 (2024)	Application of Plant-Based Hydrocolloids on the Textural Profile of Vegan Gummies Supplemented with Turmeric and Black Pepper	<b>Impact factor: 2.7</b>
5	Journal of Food Biotechnology, 35(4), 273-309. (2021)	Perspectives of bovine and human milk exosomes as health biomarkers for advancing systemic therapeutic potential (Review article)	<b>Impact factor: 1.8</b>
6	Contemporary Research in India 4 (7), 1-6. (2017)	Preparation and evaluation of Gluten free Flat Breads	<b>Peer Reviewed</b>
7	Journal of Dairying, Foods and Home Sciences. 27 (1): 33-37. (2008)	Effect of modified atmospheric packaging and storage on the chemical quality of paneer	<b>Peer Reviewed</b>
8	Journal of Food Processing and Preservation. 2025:8791770. https://doi.org/10.1155/jfpp/8791770 (2025)	Optimization of Premilling Treatments to Enhance Milling Efficiency, Nutritional Quality, and Cooking Properties of Horse Gram ( <i>Macrotyloma uniflorum</i> )	<b>Impact factor: 2.0</b>
9	Annals of Phytomedicine: An International Journal, 12(1):826-836. (2023)	Formulation and storage study of leather prepared from litchi ( <i>Litchi chinensis</i> Sonn.) fruit affected with pericarp browning using response surface methodology (RSM)	<b>Impact factor: 1.7</b>
10	Emirates Journal of Food and Agriculture. 35: 3, 210-219 (2023)	Standardization of process for development of instant chickpea using Desi and Kabuli variety	<b>Impact factor: 1.1</b>
11	Annals of Phytomedicine: An International Journal, 12(1):5-14. http://dx.doi.org/10.54085/ap.2023.12.1.64. (2023)	Fruits that heal: A natural boon to cure colon diseases. (Review article)	<b>Impact factor: 1.7</b>
12	Annals of Phytomedicine: An International Journal, 13(1) 1-10. (2024)	Process Standardization for development of Nutritionally rich microwave roasted germinated horse gram ( <i>Macrotyloma uniflorum</i> Lam.) snack.	<b>Impact factor: 1.7</b>
13	Indian Journal of Traditional Knowledge. 21(4): 22-28. (2022)	Comparative study on physical characteristics and nutritional composition of pumpkin ( <i>Cucurbita moschata</i> ) at different stage of maturity	<b>Impact factor: 1.091</b>
14.	Journal of Food Science and Nutrition (HSOA), 2024, 10:186,	Optimization of process parameters for Healthy and	<b>Peer Reviewed</b>

	DOI: 10.24966/FSN-1076/100186	Nutritious Instant Ready-to-Cook Black soybean dal premix	
15.	Indian Journal of Animal Nutrition. 34 (1): 1-12 (2017)	Genetic and Non-Genetic Factors Influencing Fatty Acid Composition of Dairy Milk: A Review (Review article)	<b>Peer Reviewed</b>
14.148 8	Indian Journal of Poultry Science 148 (1): 58-62. (2013)	Effect of guar gum and gum arabic addition on functional properties on the quality characteristics of chicken nuggets	<b>Peer Reviewed</b>
15.1	Asian Journal of Dairy and Food Research. 10.18805/ajdfr.DR-92185 (2024)	Comparative Study on Uttarakhand's Indigenous Black Soybean Variety (Bhat) for Tofu Production	<b>Peer Reviewed</b>

**Books/Monograph authored:**

S. No.	Book/ Monographs title & publisher	Year	ISSN/ ISBN No.	Complete Book if chapter only (Specify title & page Nos.)	Whether /National Publisher specify
1.	Integrated Farming System & Livelihood Security – An Approach	2011	NA	COMPLETE BOOK	NATIONAL (ICAR-CSSRI)
2.	Chemical properties of anthocyanins sourced from different subtropical fruits under the book Anthocyanins	2023	ISBN 9781003242598	Book Chapter	International
3.	Waste Management Techniques for Various Food Processing Industries. Wealth out of Food Processing. In Sub-Tropic Fruits. Pages 33-58 Waste. Pages 1-40	2024	ISBN: 9781003269199	Book Chapter	International
4.	Value Addition of Cereal and Millet Processing Industrial Waste. Wealth out of Food Processing Waste. Pages 41-72	2024	ISBN: 9781003269199	Book Chapter	International
5.	Value Addition of Spices Processing Industrial Waste. Wealth out of Food Processing Waste. Pages 188-223	2024	ISBN: 9781003269199	Book Chapter	International

8. **Specialization:** Cereals pulses & oil seeds, Bakery & Confectionery products, packaging of food products and Functional Foods

9. **Research Areas/ Area of Interest:**

- Development of gluten free products.

- Utilization and value addition of nutri-cereals.
- Process up-gradation and value addition of pulses and oilseeds.
- Extraction of bioactive compounds in food grains.
- Development of functional Foods
- Development of new healthy and nutritious bakery products.
- Designing the packaging as alternative methods of food processing for enhancing the shelf life.

**10. Any other information:**

- Excellence of Research Award (2023) in Food Science and Technology on National conference organized by AEEFWS, Punjab, MVN University, Palwal.
- Letter of appreciations from Vice- Chancellor (2016)
- Letter of appreciations from Dean College of Agriculture as Faculty Excellence Award (2021, 2022,2023,2024)
- Member of Bureau of Indian Standards (BIS)
- Member of College Academic Committee (CAC)
- Reviewer in different reputed journals
- Worked as Assistant Co-Coordinator, B.Sc. Food Technology Programme
- In-charge of Nutri Grain & bakery, Confectionery and Functional Food

**11. Any Videos and Photographs related to events at the department:**



**Pic: Interaction with ELP students**





**Pic: Different activity performed by students during In-Plant training**



**Pic: First visit of honorable Vice-Chancellor in the department**



**Pic: welcoming the students by HOD FST in new academic session.**



**Pic: Parle-G visit with UG students**



**Pic: NDRI, Karnal visit with UG, PG and Ph.D students**



**Pic: Appreciation on the occasion of World Food Day**

**12. UG/PG/Ph.D students: PG: 06 students guided as Advisor**

**PhD: 0 2 students working under guidance**