

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, 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) Funded by: Uttarakhand Council for biotechnology | Dr Sweta Rai, Asst Professor, PI 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 (<i>Fagopyrum</i> spp.) (2023-2026) Funded by: DBT, Govt. of India | Dr S.K. Sharma, Professor, PI Dr Sweta Rai, Asst Professor, Co-PI | 99.70 | 1. Lead Centre: Bennett Univ, Greater Noida 2. Centre-I: GBPUAT, Pantnagar 3. Centre-II: ICAR-NBPGR, Regional |

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| | | | 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) Funded by: 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 Dr Sweta Rai, Dy. Nodal Officer Dr Sabbu Sangeeta, Dy. Nodal Officer | 180.34 | 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) Funded by: AgroFresh Ltd., USA through M/s Tropical Agrosystem (India) Pvt. Ltd., Chennai | Dr S.K. Sharma, Professor, PI Dr Sweta Rai, Asst Professor, Co-PI | 7.05 | 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 | Impact factor: 2.3 |
| 2 | Journal of Food Science and Technology 51(4):785-789. (2014) | Quality characteristics of gluten free cookies prepared from different flour combinations | Impact factor: 2.3 |
| 3 | Frontier in Nutrition 5:116. | Gluten-Free Products for Celiac | Impact factor: 4.0 |

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| | (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 | Impact factor: 2.7 |
| 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) | Impact factor: 1.8 |
| 6 | Contemporary Research in India 4 (7), 1-6. (2017) | 4. Preparation and evaluation of Gluten free Flat Breads | Peer Reviewed |
| 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 | Peer Reviewed |
| 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>) | Impact factor: 2.0 |
| 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) | Impact factor: 1.7 |
| 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 | Impact factor: 1.1 |
| 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) | Impact factor: 1.7 |
| 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. | Impact factor: 1.7 |
| 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 | Impact factor: 1.091 |
| 14. | Journal of Food Science and Nutrition (HSOA), 2024, 10:186, | Optimization of process parameters for Healthy and | Peer Reviewed |

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|---------------------------|--|---|----------------------|
| | 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) | Peer Reviewed |
| 14.148 (1): 58-62. (2013) | Indian Journal of Poultry Science | Effect of guar gum and gum arabic addition on functional properties on the quality characteristics of chicken nuggets | Peer Reviewed |
| 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 | Peer Reviewed |

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 9781003 242598 | 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: 978100326919 9 | Book Chapter | International |
| 4. | Value Addition of Cereal and Millet Processing Industrial Waste. Wealth out of Food Processing Waste. Pages 41-72 | 2024 | ISBN: 978100326919 9 | Book Chapter | International |
| 5. | Value Addition of Spices Processing Industrial Waste. Wealth out of Food Processing Waste. Pages 188-223 | 2024 | ISBN: 978100326919 9 | 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