

## BIODATA

1. **-Name in full:** Buckseth Tanuja
2. **Date & Place (with State) of Birth:** 2<sup>nd</sup> November, 1986  
Shimla, HP
3. **Nationality:** Indian
4. **Field of specialization:** Horticulture-Vegetable Science
5. **Present Position/Designation:** Senior Scientist
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Shimla, 171 001 (HP), India



### 7. Academic career and professional attainments

Degree	Year	University/Institution	Remarks
B.Sc. (Horticulture)	2008	Dr. Y. S. P UHF, Nauni- Solan, Himachal Pradesh, India	Recipient of Merit Certificate
M.Sc. (Horticulture: Vegetable Science)	2010	Dr. Y. S. P UHF, Nauni- Solan, Himachal Pradesh, India	Recipient of Gold Medal, Merit Scholarship and Certificate during M Sc.
Ph.D. (Vegetable Science)	2013	G.B.Pant University of Agriculture and Technology, Pantnagar, Uttarakhand (UK)	-Recipient of DST-INSPIRE fellowship.
ASRB- NET	2011	ICAR	

(b) Position held	Institution			Period of appointment
Scientist	ICAR-Central Institute, Shimla	Potato	Research	2014-2018
Scientist (Senior Scale)	ICAR-Central Institute, Shimla	Potato	Research	2018- 2023
Senior Scientist	ICAR-Central Institute, Shimla	Potato	Research	2023-till date

### 8. Project handled in-house/externally funded as PI and Co-PI

S. No	Title	Duration	Role as PI/Co-PI	Agency
<b><i>Externally Funded Projects</i></b>				
1.	Energy efficient polyhouse and aeroponic system for mini-tuber production of tissue cultured potato	3 years (March 2017 - Feb. 2020)	Co-PI	NASF
2.	ICAR Consortia Research Platform on Vaccines and Diagnostics	3 years (March 2017 - Feb. 2020)	Co-PI	ICAR, New Delhi
3.	Refinement of technology for improvement of potato microtuber and aeroponic minituber production, vigour and survivability	4 years (Nov. 2011- March 2015)	Co-PI	Mini Mission-I HP
4.	Production of planting material of potato through hi-tech system of seed production for the hill of HP	4 years (Nov. 2011- March 2015)	Co-PI	Mini Mission-I HP
5.	Sub-consultancy Project between CIP and CPRI to support the CIP-APART Potato Value Chain Program in Assam	3 Years (2018-2022)	Co-PI	International Potato Center (CIP), Lima and Assam Govt.
6.	Quality Seed Potato Production using Aeroponics and Short duration potato varieties at PTC, Shamgarh, Karnal	3 Years (2018-2022)	Co-PI	International Potato Center (CIP), Lima and Haryana Govt.
7.	Potato landrace clean-up and seed production through Apical Rooted Cutting in Meghalya	3 Years (2021-2023)	Co-PI	Meghalaya Basin Management Agency (MBMA), Meghalya
<b><i>Institute Projects</i></b>				
1.	Genetic enhancement of potato through molecular and genomic tools	5 years (April 2015- March 2020)	Co-PI	ICAR-CPRI, Shimla
2.	Management and enhancement of potato germplasm	5 years (April 2015- March 2020)	Co-PI	ICAR-CPRI, Shimla
3.	Production of nucleus and breeder seed of important notified varieties of potato	5 years (April 2015- March 2020)	Co-PI	ICAR-CPRI, Shimla
4.	Resource optimization in potato based cropping system	5 years (April 2015- March 2020)	Co-PI	ICAR-CPRI, Shimla
5.	Production of nucleus and breeder	5 years	Co-PI	ICAR-CPRI, Shimla

	seed of important notified varieties of potato.	(April 2020-March 2025)		
6.	Standardization and refinement of seed production techniques under hi-tech system.	5 years (April 2020-March 2025)	Co-PI	ICAR-CPRI, Shimla
7.	Genetic Enhancement of Potato through Molecular and Genomic Tools.	5 years (April 2020-March 2025)	Co-PI	ICAR-CPRI, Shimla
8.	Biology, ecology and management of nematodes pests of potato	5 years (April 2020-March 2025)	Co-PI	ICAR-CPRI, Shimla
9.	Diploid F hybrid breeding in 1 potato	5 years (April 2020-March 2025)	Co-PI	ICAR-CPRI, Shimla

## 9. Awards/Recognitions

Items of Recognition	Year	Awarding Organizations	Individual/Collaborative
<b>National Academy Award</b>			
NAAS Associateship	2023	NAAS, New Delhi	Individual
<b>Institute Recognition</b>			
Certificate of appreciation in admiration of untiring efforts in developing the Institute Ranking Proforma for ICAR-Central Potato Research Institute for the year 2020 which resulted in 8th ranking to the institute among all the ICAR-institutes.	2022	ICAR-CPRI, Shimla	Individual
<i>Certificate of appreciation for successfully conducting the deliberations of the workshop on Industry, Trade and Policy (Co-convener) during International Potato e-Conference - New Paradigms in Food Security and Industrial Applications</i>	2021	ICAR-CPRI, Shimla	Individual
Best Hindi Worker (Scientific)	2018	Rajbhasha Section, ICAR-CPRI, Shimla	Individual
<b>Professional Society Recognition</b>			

Treasurer	2024	Indian Potato Association	Individual
Executive Councilor	2016-17, 2019-20	Indian Potato Association	Individual
<b>Editorial Board</b>			
Member of Editorial Committee, ICAR-CPRI Annual Report	2017, 2018, 2019, 2020, 2022	ICAR-CPRI, Shimla	Collaborative
<b>Best Paper/Poster Award</b>			
<p>1. <b>Best poster award</b> authored by <b>Tanuja Buckseth</b>, RK Singh, Aswani K Sharma and SK Chakrabarti for entitled "Aeroponics: A novel system could revolutionize seed potato production" presented during "7th Indian Horticulture congress: An International meet" on Doubling farmers income through Horticulture organized by Horticultural Society of India at Pusa New Delhi during November 15-18, 2016, 156p</p> <p>2. <b>Best Poster award</b> authored by Ashwani K Sharma, <b>Tanuja Buckseth</b>, RK Singh and KK Sharma for the poster entitled Studies on production behaviour of aerial vs. Normal aeroponic tubers under protected conditions in the theme Advances in seed technology during GPC 2020 held at Mahatmamandir, Gandhinagar, Gujrat, India during 28-31 January 2020</p> <p>3. <b>Best Poster award</b> for the research paper "Studies on production behaviour of fresh and one year older aeroponic mini-tubers under protected conditions in high hills" by Ashwani K Sharma, <b>Tanuja Buckseth</b> and Rajesh K. Singh. 2021; presented in technical session "Advances in Potato Breeding and Seed Research" of <i>International Potato e-Conference - New Paradigms in Food Security and Industrial Applications</i>, held at ICAR-Central Potato Research Institute, Shimla, HP during 23<sup>rd</sup> -26<sup>th</sup> Nov, 2021.</p> <p>4. <b>Best Poster Award</b> Kumar, A., Kanwar, P., Sood, S., Bhardwaj, V., Dalamu, Vanishree G., Kardile, H., Raigond, B., Kumar, R., Bairwa, A., Sharma, S, <b>Buckseth, T.</b>, Singh, R. K. and Chakrabarti, S. K. (2017). Identification of multiple disease resistant hybrids using MAS. In: National Seminar on "Sustainable Potato Production: Issues and Strategies" at BCKV, Kalyani, West Bengal, 15th Sept. 2017</p>			

## 9. Professional Affiliations

1. Indian Society of Vegetable Science (ISVS), ICAR-IIVR, Varanasi
2. Horticulture Society of India (HSI), NASC, New Delhi
3. Indian Potato Association (IPA), ICAR-CPRI, Shimla
4. Royal Association of Social led Socio-culture Advancement (RASSA), New Delhi
5. Society for Horticultural Research and Development (SHRD), Uttar Pradesh

### 10. Best Ten Research Publications

S. No.	Authors	Year	Title with full reference	Journal	NAAS Journal ID/ Rating
1.	<b>Tanuja Buckseth</b> , Sumita Sharma, Jagesh K. Tiwari, V. Kumar, Ashwani K. Sharma, C. Challam, M. Sadawarti, Rajesh K. Singh	2023	Plant Sources Identify Variations in Potato Production Potential Under Aeroponics.	Potato Research <a href="https://doi.org/10.1007/s11540-023-09670-4">https://doi.org/10.1007/s11540-023-09670-4</a>	P160 (8.90)
2.	<b>Tanuja Buckseth</b> , Jagesh Kumar Tiwari, Rajesh K. Singh, Akhilesh K. Singh, Clarissa Challam, Rasna Zint, Sumita Sharma, Ashwani K. Sharma, Murlidhar Sadawarti, Manoj Kumar and Vinod Kumar	2023	Transcriptome Analysis Reveals Molecular Signatures Associated with Apical Rooted Cutting (ARC) Technology in Seed potato production.	Journal of Plant Growth Regulation <a href="https://doi.org/10.1007/s00344-023-11158-x">https://doi.org/10.1007/s00344-023-11158-x</a>	J468 (10.80)
3.	<b>Tanuja Buckseth</b> , Singh RK, Sumita Sharma, Anuja Gautam, Tiwari JK, M Sadawarti and Manoj Kumar	2022	Influence of Micro-plant Hardening Methods on Aeroponic Potato Mini-tuber Production.	Potato Research 65: 335-348	P160 (8.90)
4.	Jagesh Kumar Tiwari, <b>Tanuja Buckseth</b> , Rajesh Kumar Singh, Rasna Zinta, Kanika Thakur, Vinay Bhardwaj, Vijay Kumar Dua & Manoj Kumar	2022	Aeroponic evaluation identifies variation in Indian potato varieties for root morphology, nitrogen use efficiency parameters and yield traits.	Journal of Plant Nutrition 45(17): 2696-2709	J470 (8.10)
5.	Tiwari JK, <b>Tanuja Buckseth</b> , Zinta R, Saraswati A, Singh RK, Rawat S, Dua VK, Chakrabarti SK	2020	Transcriptome analysis of potato shoot, root and stolon under nitrogen stress.	Scientific Reports 10:1152	S023 (10.60)
6.	Tiwari JK, Devi S, <b>Buckseth T</b> , Ali N, Singh RK, Zinta R, Dua VK, Chakrabarti SK	2019	Precision phenotyping of contrasting potato ( <i>Solanum tuberosum</i> L.) varieties in a novel aeroponics system for improving nitrogen use efficiency: in search of key traits and genes.	Journal of Integrative Agriculture 18: 2–12.	J337 (10.80)
7.	<b>Tanuja Buckseth</b> , RK Singh, Sumita Sharma, Ashwani K. Sharma, Vaishali Moudgil and Aastha Saraswati.	2018	Influence of Node Number and Orientation of Explants on in vitro Growth and Development of Potato.	Cytologia 83 (1): 19-22.	C231 (7.05)
8.	Sharma Ashwani K, <b>Buckseth Tanuja*</b> and Singh RK	2018	Effect of Seasons on Subsequent Production Behavior of Small Size Potato Mini-tubers.	Agricultural Research 7(2): 245-249.	A095 (7.40)
9.	<b>Tanuja Buckseth</b> , A.K. Sharma, K.K. Pandey, B.P. Singh and R. Muthuraj	2016	Methods of pre-basic seed potato production with special reference to aeroponics—A review.	Scientia Horticulturae, 204: 79–87.	S019 (10.30)

10.	<b>Tanuja Buckseth</b> and MIS Saggoo	2016	Meiotic Aberrations Underlying Pollen Sterility in Cultivated Potato ( <i>Solanum tuberosum</i> L.)	Cytologia 81(3): 271–274.	C231 (7.05)
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*\*Corres. Author*

## 11. Foreign Exposure- Nil