

Resume

Name : **Dr. Brinder Singh**
Position : Professor Cum Chief Scientist (Soil science)
Department : Advanced Centre for Rainfed Agriculture, (ACRA)
Institution : Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu (SKUAST-J), Chatha-180009 J&K, India

EDUCATION

Institution	Major	Degree	Year
DR.B.R.Ambedkar University, Agra U.P India	Ag.Chemistry & Soil Science	Ph.D.(Ag.Chemistry & Soil Science)	2002
DR.B.R.Ambedkar University, Agra U.P India	Ag.Chemistry & Soil Science	M.Sc. (Ag.Chemistry & Soil Science)	1999
Choudhary Charan Singh University, Meerut, Uttar Pradesh, India	All Agriculture subjects	B.Sc., Agriculture	1997

PROFESSIONAL CAREER

March 2023-Present	• Professor Cum Chief Scientist (Soil Science) in All India Coordinated Research Project for Dryland Agriculture, SKUAST-Jammu, Rakh Dhiansar, Jammu and Kashmir, India.
March 2012-2023	• Associate Professor /Sr Scientist (Soil science) in All India Coordinated Research Project for Dryland Agriculture, SKUAST-Jammu, Rakh Dhiansar, Jammu and Kashmir, India.
March 2008-2012	• Assistant Professor/ Jr. Scientist (Soil Science), All India Coordinated Research Project for Dryland Agriculture, SKUAST-Jammu, Rakh Dhiansar, Jammu and Kashmir, India.
March 2006-2008	• Sr Technical Assistant (Soil Science), All India Coordinated Research Project for Dryland Agriculture, SKUAST-Jammu, Rakh Dhiansar, Jammu and Kashmir, India.

RESEARCH INTEREST & EXPERTISE

Soil fertility and Nutrient Management, Soil Water Conservation Technique Suited to Rainfed area
EXTERNAL FUNDED RESEARCH PROJECTS AS CO-PRINCIPAL INVESTIGATOR OF PROJECTS:

- National Initiative on Climate Resilient Agriculture (NICRA) Project funded by CRIDA, Hyderabad
- Promotion of Agriculture (production of quality seed of Climate Resilient Crop Varieties (wheat/pulses/oilseeds/millet) Establishment of IFS at ACRA, Rakh-Dhiansar
- Soil and Land Resource Information System (JKSLRI) for Planning and Soil Health Management
- On-farm training and demonstration of biochar for carbon sequestration and climate change mitigation in *kandi* belt of Jammu
- HADP-Development of Rainfed areas of J & K funded by UT of Jammu and Kashmir as Co-PI, Year

of Start; 2023

- Sustainable farming through Agro-solar model Addressing challenges in rainfed agro-ecosystems (As CO-PI)
- Experiment entitled, “Productivity of pearl millet-mustard cropping sequence as influenced by organic and natural farming” (**PMAT-7**) under progress w.e.f *kharif* 2022 at ACRA, Rakh Dhiansar under AICRP on Pearl millet (Cooperating Centre), HQ, AU, Jodhpur. (As CO-PI)
- High resolution soil mapping of selected district of jammu Division (As CO-PI)

AICRPP Projects (As-PI & CO-PI)

- Permanent manurial trial in maize based cropping system
- Quantification of residual effect of organic and inorganic sources of plant nutrition
- Evaluation and development of alternate land use systems for rainfed conditions of Jammu

➤ STUDENTS GUIDANCE (PG/Ph.D)

- Major Advisor : 02 (M.Sc.)
- Member Advisor : 05 (M.Sc.)

➤ ON-GOING

- Major Advisor : 02 (M.Sc.)
- Member Advisor : 02 (Ph.D) & 9(M.Sc.)

TECHNOLOGY PUBLISHED

Rainfed Farming A Compendium of Double Technology Published in AICRPDA-Hyderabad

- Line Seeding of Rainfed crop using seed-cum fertilizer drill in Jammu region.
- Agri-horti and Silvi-agriculture system for Jammu region.
- Silvi-agri-pastoral system for kandi area of Jammu region.
- Efficient weeders for rainfed crops in Jammu region

Technology included in Package and practices SKUAST-Jammu

- **Integrated Nutrient Management in pearl millet crop yield under rainfed conditions**
Recommendation: Application of 75% N (Inorganic) + 25% N vermicompost recorded highest pearl millet mean grain yield.
- **Integrated nutrient management in rainfed maize**
Recommendation: Application of integrated use of inorganic and organic fertilizers, i.e., FYM@10 t/ha + 40 N kg/ha (urea) with recommended dosage of phosphorus and potassium resulted in higher maize grain yield over control
- **Evaluation of foliar application of nutrients on crop performance under rainfed conditions of Jammu region**
Recommendation: Combined foliar spray of 0.5% N (through urea) and 0.5% K (through KCl) with RDF is recommended for obtaining highest grain and straw yield in wheat

Technology assessment and refinement

- **Assessment of Planting two rows of cowpea as intercrop in paired rows of maize**

T₁: Maize+ cowpea(1:1) T₂: 2 rows of maize + 2 rows of cowpea. T₃ (Farmers practice): Mixed cropping (local maize + local cowpea)

- **Soil and foliar application of nutrient sources in maize under rainfed condition.**
Recommendation: 100 % recommended NPK +1 % ZnSO₄ foliar spray recorded the highest mean grain yield of Maize.
- **Integrated Nutrient Management in Maize under rainfed area of Jammu Region**
The application of integrated nutrient management (INM) significantly enhanced maize productivity, economic returns, and soil fertility compared to traditional methods. The treatment involving 50% recommended NPK + 50% N through FYM recorded highest mean grain yield of maize

BOOKLETS PUBLISHED

- Booklet entitled “ A Brief of Research Achievements of AICRPDA was published and released in Annual Workshop of AICRPDA held at CRIDA, Hyderabad.
- Booklet entitled “ Package and practices of Kharif crops” was published and released in Annual Workshop of AICRPDA held at CRIDA, Hyderabad

BOOKS AUTHORED

- Anil Kumar, Parveen Kumar, Reena, **Brinder Singh**, Jai Kumar. Rainfed Agriculture in Jammu region a perspective 2016 ISBN:978-1-73034-201-1
- Reena, Sonika Jamwal Anil Kumar Jai Kumar, P.K.Rai, **Brinder Singh** and R. Puniya and Jai Kumar (2018) A colour Handbook on rainfed Kharif crops – Protection constraints and Mitigation Strategies New India Publishing Agency, New Delhi ISBN: 978-93-86546-69-2.
- Vikas Abrol, Anil Kumar, **Brinder Singh**, Permendra Singh. 2019. An Insight into Soil and Plant Analysis Jaya Publishing House New Delhi ISBN:978-93-87590-71-7

Intellectual property generation Patents

- A.P.Singh, Brinder Singh, Permendra Singh Jai Kumar, Vijay Kumar, Sushmita M Dadhich Badri Narayan Subudhi, Deepa Singh, Sandeep Singh Pagoch. SMART AI BASED IRRIGATION CONTROL. DEVICE . Design No 451015-001 Dated 10/03/2025
- Vijay Kumar, Brinder Singh, Gurdev Chand, Saurav Gupta, Vishal Raina, Tejbir Singh Buttar, Neetaj Sharma, Satish Kumar Sharma, Permendra Singh, Vijay Khajuria, Rohit Sharma. IOT BASED CHEMICAL MIXING DEVICE FOR AGRICULTURAL FARM. Design No 453587-001 Dated 29/03/2025
- **Education Management**
Member of Academic Council SKUAST-Jammu. Letter No AUJ/Acad/2023-24/F-08/8373-8422 Dated 08-12-2024

RESEARCH PUBLISHED

S.No	Authors/Paper/Year/journal/VolumeNo/Page
1	Singh, Brinder. , Kumar, Anil., Gupta, Vikas., Abrol, Vikas., Singh, A.P., Kumar, Jai., Singh, Mahender., Dadich, Hemat., and Singh, Permendra., 2020. Effect of Organic and inorganic nutrient on Pearl millet (Pennisetum glaucum) -gobhi Sarson (Brassica napus var,napus) cropping sequence. Indian Journal of Agricultural Science 90 (2):302-306
2	Singh, Brinder. , Singh, A.P., Gupta, Vikas., Abrol, Vikas, Kumar, Jai., Singh, Permendra., Kumar, Vijay., and Raina, Sunny., 2022. Influence of nutrient-management practices on crop-growth indices, soil fertility and yield of pearl millet (Pennisetum glaucum)–gobhi sarson (Brassica napus subspecies napus) cropping system under north-west Himalayan region. Indian Journal of Agronomy , 67 (3): 228-234.

3	Singh A.P., Gupta, Vikas., Singh, Brinder. , Kumar, Jai., Singh, Mahender., Abrol. Vikas., and Singh, Permendra., 2022. Evaluation of cropping systems for livelihood security of farmers in rainfed sub-tropics of Jammu. Range Mgmt. & Agroforestry , 43 (1) : 94-101
4	Abrol, Vikas., Sharma, Peeyush., Chary, G Ravindra., Srinivasarao, Ch., Sankar,G. R.Maruthi., Singh, Brinder. , Kumar, Ajay., Hashem, Abeer., Ibrahimova, Ulker., Abd-Allah, Elsayed Fathi., & Kumar, Manish., 2024 Integrated organic and mineral fertilizer strategies for achieving sustainable maize yield and soil quality in dry sub-humid inceptisols. Scientific Reports https://doi.org/10.1038/s41598-024-74727-4
5	Farooq, F., Singh, P., Singh, A.P., Singh, B. , Kumar, R., Lalrammawii, C., McCarty, J.S., Srivastava, H. and Mehta, S. (2025). Effect of Zinc and Iron Fertilization on Productivity of Pigeon Pea (<i>Cajanus cajan</i>) under Rainfed Agro-ecologies of Jammu. Legume Research . 1-6. doi: 10.18805/LR-5401.
6	Permendra Singh, Vikas Gupta, A.P. Singh, Brinder. Singh , Shashank Shekher Singh, (2025). Thermal Requirement for Phenophases of Pigeonpea Varieties under Rainfed Sub-tropics of Lower Shivalik Hills of Jammu and Kashmir UT. Legume Research . 1-7. doi: 10.18805/LR-5486. Online: 12-11-2025
7	Faraaz Farooq , Permendra Singh , A. P. Singh , Brinder Singh , Neetu Sharma , Asfer Hamid , J. S. McCarty , Hritik Srivastava & C. Lalrammawii. 2026. Advancing nutritional quality, profitability, and soil quality of pigeon pea through agronomic biofortification of zinc and iron Journal of Plant Nutrition , Published online: 26 Apr 2026 Volume 49, - Issue 9 Pages 1616-1631
8	Meenakshi Gupta , Vikas Gupta, Brinder Singh , Vivek Bhagat, Shubam Jamwal and Banti. (2026) Production potential of dual-purpose pearl millet (<i>Pennisetum glaucum</i>) as an alternate crop under changing climatic conditions. Range Management and Agroforestry 47(1):1-8 https://doi.org/10.59515/rma.2026.v47.i1.22
9	Faraaz Farooq, Neetu Sharma, Vikas Sharma, Brinder Singh , Rakesh Kumar, J.S. McCarty, and Hritk Srivastava, (2026). Performance of a Diversified Legume-based High-intensity Cropping Sequence on Productivity and Profitability. Legume Research . 1-9. doi: 10.18805/LR-5606. Online: 17-01-2026
10	Sachin, Arvind Parkash Singh , Neetu Sharma , Brinder Singh , Magdeshwar Sharma , Anil Kumar & Amol Pawar.(2026) Integrated use of weed-derived biochar and inorganic fertilisers enhances growth, physiology and yield of wheat under rainfed subtropical conditions. Plant Science Today Vol 13(sp2): 1-10 https://doi.org/10.14719/pst.140531-10
11	Ranjana M, Jai K, Arvind PS, Anil K, Brinder S, Vivak MA, Rohit S, Rakesh K, Gurleen K, Vikalp R, Vishal D. (2026) Productivity of pearl millet (<i>Pennisetum glaucum</i> L.) cultivars as influenced by zinc and iron fertilisation under rainfed conditions. <i>Plant Science Today</i> . 13(sp2):01–09. https://doi.org/10.14719/pst.13503
Other important publications	
1	Abrol, Vikas., Singh, A P., Kumar, Anil., Chary, Ravinder., Srinivasarao, Ch., sharma, Peeyush., Singh, Brinder. , Salgotra, Sanjeev., Kapoor, Jai., and Dadhich, Hemant, 2020 Effect of foliar application of nutrients on wheat (<i>Triticum aestivum</i>) crop performance, economics, resource use efficiency and soil properties under rainfed conditions. Indian Journal of Agricultural Sciences 90 (1): 138–41

2	Reena, Singh, B. , Singh, A. P., Sinha, B K., Gupta V., and Jha A C., 2021. Impact of soil fertility on maize stem borer chilo partellus. <i>Indian Journal of Entomology</i> ,83(1): 67
3	Kumar, Jai., Singh, A. P., Kumar, Anil., Gupta, Vikas., Singh, Brinder. , Singh, Mahender., Singh, Permendra., Reena., and Jamwal, Sonika., 2021. Rainfall characteristics and probability analysis for crop planning of Samba district of Jammu and Kashmir (U.T.) India Agricultural Mechanization in Asia ,52 (03): 4561
4	Kumar, Vijay., Kumar, Rakes., Chand, Gurdev., Kumar, Jai., Singh, Brinder. , Khajuria, shalini., Dhotra, Balbir., Reena, Sharma, Amitesh., Kumar, Manoj., 2022 Dynamics of soil properties and fruit productivity of kinnow mandarin (Citrus reticulate blanco) as affected by drip trickle irrigation and hydrogel. <i>Agricultural Mechanization in Asia, Africa and Latin America</i> , 53 (03): 6039-6446
5	Singh, A.P., Singh Brinder. , Kumar, Jai., Abrol, Vikas., Rai, AP., Gupta, Vikas., Sharma, Rohit., and Raina.Sunny., 2023. Effect of integrated nutrient management on growth, yield and nutrient uptake in maize under rainfed shivaliks foot hills of Jammu region. The Pharma Innovation journal 12(6): 1461-1464.
6	Vikas Gupta , Brinder Singh , Sanjeev Kumar , Reena , Permendra Singh , Sonika Jamwal , Neeraj Gupta and Rohit Sharma. (2025) Performance of pearl millet hybrids and their relationship with weather parametres under rainfed conditions of low altitude plains of N-W Himalayan region. Agriculture Association of Textile Chemical and Critical Reviews Journal 234-240 02 September 2025: Available Online

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