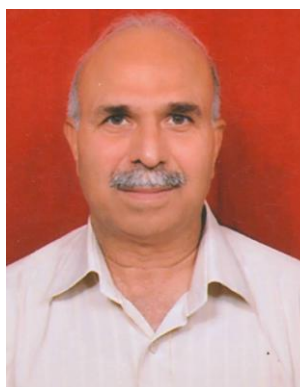


CURRICULUM VITAE

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1. Contact

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2. Career

Director, CSSRI, Karnal (10-10-2016 to present)

Head, Division of Crop Improvement, CSSRI, Karnal (01-11-2014 to 09-10-2016)

Principal Scientist (Plant Physiology) (CSSRI, Karnal- 2006 to present)

Senior Scientist (CSSRI, Karnal- 1998-2006)

Scientist Sr. Scale (CSSRI-Karnal 1991-1998)

Scientist (CSSRI-Karnal 1989-1998, CAZRI, Jodhpur-1986-1988)

3. Education

B.Sc. (PU, Chandigarh, 1979), M.Sc. (PAU, Ludhiana, 1982), Ph.D. (PAU, Ludhiana, 1986); Management Development Programme on Leadership Development (a Pre-RMP Programme) organized by NAARM, Hyderabad from 8-19 Oct., 2012

4. Awards/ Recognitions

Fellow, Indian Society for Plant Physiology; 2014

Fellow, Society for Rapeseed Mustard Research, 2014

Best Poster Award, 2012

General Secretary, Indian Society of Soil Salinity and Water Quality, 2011 onwards

Visiting Professor, IBERS, Aberystwyth, UK, 2010

Director's Appreciation Award, CSSRI, Karnal, 2008

FAO/IAEA Expert in Indonesia, 2008

5. Externally Funded Projects as PI

- Cereal Systems Initiative (CSISA) for South Asia- Objective 2 (Strategic Experimental Platform for Future Cereal Systems) : *Developing crop and resource management practices for sustainable future cereal based systems- Phase I (2008-2012, Phase II (2012-2015), Funding: IRRI, CIMMYT*
- From QTL to Variety: Marker Assisted Breeding of Abiotic Stress Tolerant Rice Varieties with Major QTLs for Drought, Submergence and Salt Tolerance (2010-2014), Funding: DBT-IRRI Network

- Genetic engineering for abiotic stress tolerance in crops (2008-2011), Funding: ICAR
- Using genomics and mapping approaches to improve tolerance of crop plants to salinity stress (2007-2010), Funding: DST, New Delhi
- Identification and pyramiding of genes for improving salt tolerance and seed yield in Indian mustard (*Brassica juncea* L.) under salinity stress. (2004-2009), Funding: IAEA, Vienna

6. Visits Abroad

CSISA review meetings – Kathmandu, Nepal (2014, 2013)

Visiting Professor, IBERS, Aberystwyth, UK, 2010

International Conference – Shanghai, China (2009)

CSISA project meeting – IRRI, Philippines (2009)

RCM – IAEA, Vienna, (2008)

FAO consultancy – Indonesia (2008)

RCM- Accra, Ghana (2006)

RCM – IAEA, Vienna (2005)

Study Visits - Sussex, UK (1993, 1997)

7. Selected Research Publications

1. **Sharma, P.C.**, Singh, D., Sehgal, D., Singh, G., Hash, C.T. and Yadav, R.S. 2014. Further evidence that a terminal drought tolerance QTL of pearl millet is associated with reduced salt uptake. *Environmental and Experimental Botany*. 102: 48-57. (DOI:10.1016/j.envexpbot.2014.01.013)
2. Singh, J., **Sharma, P.C.**, Sharma, S.K. and Rai, Munmun. 2014. Assessing effect of salinity on oil quality parameters of Indian mustard (*Brassica juncea* L. Czern & Coss) using Fourier Transform Near-Infrared Reflectance (FT-NIR) spectroscopy. *Grasas y Aceites*, 65(1): 1-8 (DOI: 10.3989/gya.063413).
3. Tirol-Padre, A., Rai, M., Gathala, M., Sharma, S., Kumar, V., Sharma, P.C., Sharma, D.K., Wassmann, R. and Ladha, J.K., 2014. Comparative assessment of photo-acoustic infrared spectroscopy and gas chromatography for measuring N₂O, CO₂ and CH₄ fluxes in agricultural fields. *Global Change Biology*, 20 (1) : 287-299. (DOI: 10.1111/gcb.12347)
4. Singh, J., **Sharma, P.C.**, Sharma, S.K. and Kumar, A. 2013. Standardization of fourier transform near-infrared reflectance spectroscopy for estimation of some oil quality parameters in mustard (*Brassica* spp.). *Plant, Soil and Environment*, 59 (10): 478-483.
5. Gathala, M.K., Kumar, V., **Sharma, P.C.**, Saharawat, Y.S., Jat, H.S., Singh, M., Kumar, A., Jat, M.L., Humphreys, E., Sharma, D.K., Sharma, S. and Ladha, J.K. 2013. Optimizing intensive cereal-based cropping systems addressing current and future drivers of agricultural change in the Northwestern Indo-Gangetic plains of India. *Agriculture, Ecosystems and Environment*, 177 (1): 85-97. (DOI : 10.1016/j.agee.2013.06.002)
6. Tripathi, R.S., Gautam, R.K., Kulshreshtha, N., **Sharma, P.C.** and Qadar, A. 2012. Impact of salt tolerant crop varieties on food grains production under salty environment of India. *Journal of Soil Salinity and Water Quality*, 4 (2): 97-101.

7. **Sharma, P.C.**, Sehgal, D., Singh, D., Singh, G. and Yadav, R.S. 2011. A major terminal drought tolerance QTL of pearl millet is also associated with reduced salt uptake and enhanced growth under salt stress. *Molecular Breeding*, 27(2): 207-222 (DOI 10.1007/s1032-010-9423-3).
8. **Sharma, P.C.** and Ashok Kumar, 2006. Performance of oat (*Avena sativa*) genotypes under alkali soil irrigated with sodic water. *Indian Journal of Agricultural Sciences*, 76 (4) : 249-251.
9. **Sharma, P.C.**, Mishra, B., Singh, R.K. and Narayan, S. 2006. Adaptability of garlic (*Allium sativum*) genotypes to alkali stress. *Indian Journal of Agricultural Sciences*, 76 (2) : 71-76.
10. Sinha, T.S., Singh, D., **Sharma, P.C.** and Sharma, H.B. 2003. Rapid screening methodology for salt tolerance during germination and seedling emergence in Indian mustard (*Brassica juncea* L.). *Indian Journal of Plant Physiology*, **8, special issue (N.S.)**: 363-367.
11. **Sharma, P.C.** 2003. Salt tolerance of Indian mustard (*Brassica juncea* L.): Factors affecting growth and yield. *Indian Journal of Plant Physiology*, **8, special issue (N.S.)**: 368-372.
12. **Sharma, P.C.**, Mishra, B., Singh, R.K., Singh, Y.P. and Tyagi, N.K. 2000. Adaptability of onion (*Allium cepa* L.) genotypes to alkali and salinity stresses. *Indian Journal of Agricultural Sciences*, **70 (10)** : 674-679.
13. **Sharma, P.C.** and Kumar, P. 1999. Alleviation of salinity stress during germination in *Brassica juncea* by pre-sowing chilling treatments to seeds. *Biologia Plantarum* : **42 (3)** : 451-455.
14. Dua, R. P. and **Sharma, P.C.** 1996. Physiological basis of salinity tolerance in Pigeonpea (*Cajanus cajan*) and method of testing materials under highly variable soil conditions. *Indian Journal of Agricultural Sciences*, **66(7)** : 405-412.
15. Rao, D.L.N. and **Sharma, P.C.** 1995. Alleviation of salinity stress in chickpea by *Rhizobium* inoculation or nitrate supply. *Biologia Plantarum* **37 (3)** : 405-410.
16. Rao, D.L.N. and **Sharma, P.C.** 1995. Effectiveness of rhizobial strains for chickpea under salinity stress and recovery of nodulation on desalinization. *Indian Journal of Experimental Biology*. **33 (7)** : 500-504.
17. **Sharma, P.C.** and Gill, K. S. 1994. Salinity induced effects on biomass, yield, yield attributing characters and ionic contents in genotypes of Indian mustard (*Brassica juncea*). *Indian Journal of Agricultural Sciences*. **64 (11)** : 785-788.
18. Garg, B.K., Vyas, S.P., Kathju, S., Lahiri, A.N., Mali, P.C. and **Sharma, P.C.** 1993. Salinity - fertility interaction on growth, mineral composition and nitrogen metabolism in Indian mustard. *Journal of Plant Nutrition*. **16 (9)**: 1637-1650.
19. **Sharma, P.C.** and Gill, K.S. 1992. Effect of salinity on yield and ion distribution in pearl millet genotypes. *Arid Land Research and Management*. **6 (3)**: 253-260.
20. **Sharma, P.C.**, Mali, P.C., Garg, B.K., Vyas, S.P., Kathju, S. and Lahiri, A.N. 1989. Interactive effects of soil fertility and salt stress on the activities of certain enzymes of nitrogen metabolism in mustard. *Current Science*. **58**: 390-392.

8. Other Publications (Books/Brochures/ Book Chapters)

1. Singh, K.N. and **Sharma, P.C.** (Eds.) 2005. *Crop Improvement for Management of Salt Affected Soils*. Central Soil Salinity Research Institute, Karnal. pp. 221.
2. Singh, G.B., **Sharma, P.C.**, Ambast, S.K., Kamra, S.K. and Khosla, B.K.. 2006. *CSSRI- A Journey to Excellence..* Central Soil Salinity Research Institute, Karnal. pp. 156
3. **Sharma.P.C.**, Jat, H.S., Yaduvanshi, N.P.S., Sharma, D.K., Singh, Gurbachan, Gathala, M.K., Kumar, Virender, Sahrawat, Y.P., Jat, M.L., Ladha, J.K. and McDonald, A. 2014. *Sanrakshan kheti ke sidhanton par aadharit khadyan suraksha ki ek samrik rooprakha* (in Hindi). Central Soil Salinity Research Institute (ICAR) and Cereal System Initiative for South Asia (CIMMYT), Karnal, India, p 32.
4. Sharma, D.K., Chaudhari, S.K., **Sharma, P.C.** and Chinchmalatpure, A.R. 2014. Vision 2050. Central Soil salinity Research Institute, Karnal (Haryana), pp. 29.
5. Sharma, D.K., Dey, P., Gupta, S.K. and **Sharma, P.C.** 2011. CSSRI-Vision 2030. Central Soil salinity Research Institute, Karnal (Haryana)
6. Singh, Gurbachan, **Sharma, P.C.** and Kaledhonkar, M.J. (Eds.). 2007. CSSRI- Perspective Plan : Vision 2025. Indian Council of Agricultural research, New Delhi, pp. 114.
7. Singh, Gurbachan, Jat, H.S., Kumar, Ashok, Shekhawat, K., Yaduvanshi, N.P.S., Tripathi, R.S., Batra, L., Pandey, R.S., **Sharma, P.C.**, Chaudhari, S.K., Singh, S.K., Kundu, S.S., Sirohi, N.S., Mohan, S., Singh, D and Kailash. 2009. Eco-friendly integrated multi-enterprize model for livelihood security in small farm holdings. Technical Bulletin CSSRI/Karnal/2009/05, Central Soil Salinity Research Institute, Karnal. P 26.
8. Sapkota, T.B., Rai, M., Singh, L.K., Gathala, M.K., Jat, M.L., Sutaliya, J.M., Bijarnya, D., Jat, M.K., Jat, R.K., Parihar, C.M., Kapoor, P., Jat, H.S., **Sharma, P.C.** and Sharma, D.K. 2014. Greenhouse gas measurement from smallholder production systems: guidelines for static chamber method. International Maize and Wheat Improvement Center (CIMMYT), Indian Council of Agricultural Research (ICAR), New Delhi, India.
9. Jat, M.L., Kapil, Kamboj, B.R., Sidhu, H.S., Singh, Manpreet, Bana, Anil, Bishnoi, Dalip, Gathala, M., Sahrawat, Y.S., Kumar, Vivek, Kumar, Anil, Jat, H.S., Jat, R.K., **Sharma, P.C.**, Sharma, R.K., Singh, Rajbir, Sapkota, T.B., Malik, R.K. and Gupta, Raj, K. 2013. Operational manual for Turbo Happy Seeder – Technology for managing crop residues with environmental stewardship. International Maize and Wheat Improvement Center (CIMMYT), Indian Council of Agricultural Research (ICAR), New Delhi, India, p 28.
10. Jat, H.S., Singh, Gurbachan, Pandey, R.S., **Sharma, P.C.**, Yaduvanshi, N.P.S., Singh, S.K., Raju, R., Yadav, R.K., Chaudhari, S.K. and Sharma D. K. 2013. Multi-enterprize model under small farm holdings for enhancing resource use efficiency and sustaining livelihood. In: *Resource Conservation Technologies for Seed Spices* (Eds., Singh, R., Lal, Gopal, Mehta, R.S., Chaudhary, S. and Singh, B.). Published by NRCSS, Ajmer, pp. 188-201.

11. Gill, S.S., Gill, R., Kumar, G., Pareek, A., **Sharma, P.C.**, Anjum, N.A. and Tuteja, N. 2012. Mustard: Approaches for crop improvement and abiotic stress tolerance. In: *Improving crop resistance to abiotic stress*, Vol. 2 (Eds: N. Tuteja, S.S. Gill, A.F. Tiburcio and R. Tuteja). Pp: 1351-1368, Wiley Wiley-VCH, Verlag GmbH & Co., Weinheim, Germany, (DOI: 10.1002/9783527632930.ch52)
12. **Sharma, P.C.** and Singh, R.K. 2008. Approaches to enhance salt tolerance in crop plants: Progress and Prospects. In: *Crop Improvement: Strategies and applications* (Eds. R.C. Setia, H. Nayyar and N. Setia). IK International Publishing House Pvt. Ltd., New Delhi. Pp 179-205.
13. **Sharma, P.C.** and Sinha, T.S. 2006. Factors affecting salt tolerance of Indian mustard. In: *Plant Molecular Physiology. Current Scenario and Future Projections*. (Ed. P.C. Trivedi), Avishkar Publishers, Jaipur, India. Pp. 180-200.
14. **Sharma, P.C.** and Singh, K.N. 2005. Seed germination and the recent approaches to enhance salt tolerance in plants. In: *Crop Improvement for Management of Salt Affected Soils*. Central Soil Salinity Research Institute, Karnal. pp. 11-21.
15. Gill, K.S. and **Sharma, P.C.** 2003 Growth, yield and physiological responses to saline water application at various growth stages in *Brassica juncea*. In: *Dimensions of Environmental Threats* (Ed. Arvind Kumar), Daya Publishing House, New Delhi. Pp. 244-253.