

## Dr Pramod Jha



Designation: Principal Scientist  
Division of Soil Chemistry & Fertility

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### Research specialization:

I am currently working on carbon sequestration and stabilization under the practices of conservation agriculture. I am studying the mechanisms of carbon sequestration and stabilization in soils and how an understanding of the mechanisms provides the key to the control and regulation of soil organic C content. I am trying to find out how carbon stabilization in soil is ultimately affecting nitrogen dynamics. I worked on carbon cycling under long term fertilizer experiment, conservation agriculture and riparian zone of Yamuna ravine. I am entrusted to work on the theme of carbon stabilization mechanism and dynamics under the practice of conservation agriculture. I am also exploring biochar and its potential application in soil for restoration of degraded/problematic soil. I was earlier involved in development of soil C and N prediction model using the dataset of long-term fertilizer experiment of India.

### Professional Experience:

I started my career as ARS scientist in 2003 at Central Soil & Water Conservation Research & Training Institute, Dehradun, regional centre-Agra. In 2009, I joined as senior scientist at ICAR-Indian Institute of Soil Science, Bhopal. Currently, I am working as Principal Scientist at ICAR-IISS, Bhopal.

### Awards and Honours:

I received my master and Ph.D. degree in Soil Science and Agricultural Chemistry from Indian Agricultural Research Institute, New Delhi. I completed my short term post doc research from The University of Queensland, St Lucia, Australia. I was visiting scholar at The Ohio State University, Columbus USA. I am the recipient of Indian Science Congress (ISCA) award (Dr B.C. Deb Memorial Award for Soil/Physical Chemistry), Endeavour fellow (Government of Australia), Dr JSP Yadav Award for Excellence in Soil Science (Indian Society of Soil Science, New Delhi), Young Scientist Award (Indian Society of Soil Science, New Delhi and Indian Association of Soil Conservationists, Dehra Dun), and IARI Gold Medal.

## Top Ten publications:

1. Jha, P., Hati, K., Dalal, R.C., Dang, Y.P., Kopittke, P.M., Menzies, N.W., (2020). Soil carbon and nitrogen dynamics in a Vertisol following 50 years of no-tillage, crop stubble retention and nitrogen fertilization. *Geoderma* 358, 113974.
2. Jha, P. and Mohapatra, K.P. (2010) Leaf litterfall, fine root production and turnover in four major tree species of the semi-arid region of India. *Plant and Soil*, 326(1): 481-491, DOI 10.1007/s11104-009-0027-9.
3. Jha, P., Lalkaria, B.L., Biswas, A.K., Saha, R., Mahapatra, P., Agrawal, B.K., Sahi, D.K. Wanjari, R.H., Lal, R., Singh, M., Rao, A.S. (2014 )Effects of carbon input on soil carbon stability and nitrogen dynamics. *Agriculture, Ecosystems and Environment*, 189, 36-42. DOI: 10.1016/j.agee.2014.03.019
4. Jha, P., Garg, N., Lakaria, B.L., Biswas, A.K., and Subba Rao A (2012) Soil and residue carbon mineralization as affected by soil aggregate size. *Soil & Tillage Research*, 121 (2012) 57–62. DOI: 10.1016/j.still.2012.01.018.
5. Jha, P., Mohapatra, K.P. and Dubey, S.K. (2010) Impact of land use on physico-chemical and hydrological properties of ustifluent soils in riparian zone of river Yamuna, India. *Agroforestry Systems*, 80, 437-445. DOI 10.1007/s10457-010-9338-3.
6. Jha, P., Nitant, H.C. and Mandal, D. (2009) Establishing permissible erosion rates for various landforms in Delhi state, India. *Land Degradation and Development* 20: 92-100, DOI: 10.1002/ldr.886.
7. Jha, P., Verma, S., Lal, R., Eidson, C. and Dheri, G. S. (2017), Natural <sup>13</sup>C abundance and soil carbon dynamics under long-term residue retention in a no-till maize system. *Soil Use Management* 33 (1): 90-97.doi:10.1111/sum.12323
8. Jha, P., Biswas, A.K., Lakaria, B.L. and Subba Rao A. (2010) Biochar in agriculture -prospects and related implications. *Current Science* 99(9), 1218-1225.
9. Jha, P., De, A. , Lakaria, B.L., Biswas, A.K., Singh, M., Reddy, K.S. and Subba Rao, A. (2012) Soil carbon pools, mineralization and fluxes associated with land use change in vertisols of central India. *National Academy Science letters (Springer)*, 35 (6), 475-483.
10. Jha, P., Neenu S, Rashmi, I, Meena, B.P., Jatava, R. C. , Lakaria, B. L., Biswas, A.K., Singh, M. and Patra, A.K. (2016).Ameliorating Effects of Leucaena Biochar on Soil Acidity and Exchangeable Ions. *Communication in Soil Science Plant Analysis*, 47:10, 1252-1262.