

Profile of Dr. Narendra Kumar Lenka



Designation : Head and Principal Scientist

Division of Soil Physics

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Research specialization: Soil physics, Climate change impacts on agriculture, soil and water conservation, soil quality indexing

Professional experience : Working as Scientist in ICAR since November, 2000

Awards and Recognitions

- USDA Norman E Borlaug fellowship
- Associate Fellowship of the National Academy of Agricultural Sciences (NAAS), New Delhi
- Fellow of the Indian Association of Soil and Water Conservationists, Dehradun
- Dr. JSP Yadav Memorial award for excellence in soil science of the Indian Society of Soil Science, New Delhi
- Dr DN Puri award for excellence in NRM research
- Golden Jubilee Commemoration Young Scientist award of the Indian Society of Soil Science, New Delhi
- Young Scientist award of the Indian Association of Soil and Water Conservationists, Dehradun

Selected publications

1. **Lenka Narendra Kumar**, BP Meena, R Lal, A Khandagle, S Lenka, AO Shirale (2022) Comparing four indexing approaches to define soil quality in an intensively cropped region of northern India. *Frontiers in Environmental Sciences*, 10, 865473, doi: 10.3389/fenvs.2022.865473
2. **Lenka Narendra Kumar**, Sangeeta Lenka, Dharmendra Singh Yashona, Dinesh Jat (2021) Elevated temperature and low nitrogen partially offset the yield, evapotranspiration, and water use efficiency of winter wheat under carbon dioxide enrichment. *Agricultural Water Management*, 250, 106856
3. **Lenka Narendra Kumar**, Sangeeta Lenka, Dharmendra Singh Yashona, Arvind Kumar Shukla, R Elanchezhian, Pradip Dey, Pawan Kumar Agrawal, Ashish K

Biswas, Ashok Kumar Patra (2021) Carbon dioxide and/or temperature elevation effect on yield response, nutrient partitioning and use efficiency of applied nitrogen in wheat crop in central India, *Field Crops Research* 264, 108084.

4. **Lenka NK**, S Lenka, P Mahapatra et al (2019) The fate of ¹⁵N labeled urea in a soybean-wheat cropping sequence under elevated CO₂ and/or temperature. *Agriculture, Ecosystems and Environment*, 282, 23-29.
5. **Lenka NK**, S Lenka, KK Singh, Ajay Kumar et al (2019) Effect of elevated CO₂ on plant growth, nutrient partitioning and uptake of major plant nutrients in soybean under varied nitrogen application levels. *Journal of Plant Nutrition and Soil Science* 182, 509-514.
6. **Lenka NK**, S Lenka, JK Thakur et al (2017) Interactive effect of elevated carbon dioxide and elevated temperature on growth and yield of soybean. *Current Science* 113, 2305-2310.
7. **Lenka NK**, KK Satpathy, R Lal et al (2017) Weed strip management for minimizing soil erosion and enhancing productivity in the sloping lands of north-eastern India. *Soil & Tillage Research* 170, 104-113.
8. **Lenka, NK**, D Mandal and S Sudhishri (2014) Permissible soil loss limits for different physiographic regions of West Bengal. *Current Science*, 107, 665-670.
9. **Lenka, NK**, S Sudhishri, Anchal Dass, PR Choudhury, Sangeeta Lenka and US Patnaik (2013) Soil carbon sequestration as affected by slope aspect under restoration treatments of a degraded alfisol in the Indian sub-tropics. *Geoderma*, 204, 102-110.
10. **Lenka, NK** and Rattan Lal (2013) Soil aggregation and greenhouse gas flux after 15 years of wheat straw and fertilizer management in a no-till system. *Soil and Tillage Research*, 126, 78-89.
11. **Lenka, NK**, A Dass, S Sudhishri, PR Choudhury and US Patnaik (2012) Soil carbon sequestration and erosion control potential of hedgerows and grass filter strips in sloping agricultural lands of eastern India. *Agriculture, Ecosystems & Environment*, 158, 31-40.
12. **Lenka, NK**, PR Choudhury, S Sudhishri, A Dass and US Patnaik (2012) Soil aggregation, carbon build up and root zone soil moisture in degraded sloping lands under selected agroforestry based rehabilitation systems in eastern India, *Agriculture, Ecosystems & Environment*, 150, 54-62.