

## Mrs. Seema Bhardwaj



Designation: Scientist (Sr. Scale),  
Soil science

Division of Soil Physics,

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### Research specialization:

Soil quality assessment in different land use systems of arid regions, soil survey, carbon sequestration in rainfed and irrigated lands of western Rajasthan, nitrogen use efficiency under water deficit condition, nutrient release dynamics from leaf litter, mulching and irrigation methods, Water harvesting based integrated agricultural production, conservation agriculture practices for erosion control.

### Professional Experience:

I have more than 12 years (2008 to till date) of experience in scientific research in the field of soil science under natural resource management. I have completed two projects and 6 projects (PI&co-PI res.). I have **13** Research publications, 10 book chapters, edited **3** books (hindi) and **9** technical bulletin (Hindi & English), **40** popular articles, **4** extension pamphlets. Conducted around 14 farmer training..field days Delivered subject oriented TV programmes on ETV Rajasthan and radio talks on Akashwani.

### Awards and Honours:

- **Chaudhary charan singh smriti kisan trust award 2004**, for university merit in graduation by SKRAU, Bikaner.
- Awarded **ICAR-JRF** (2004-2006) during Masters degree in soil science.
- Awarded **Dr.S.D.Nijhawan Gold Medal** by CCS Haryana Agricultural University, Hisar at CCSHAU, Hisar (Haryana) on 10 December 2010.
- Jointly received **5 best poster awards** in different Agriculture conferences.

### Top Ten publications:

1. Rathore, V.S., Nathawat, N.S., **Bhardwaj, S.**, Renjith, P.S., Yadav, B.M, Mahesh kumar, Santra, P., Yadava, N.D and Yadav, O.P. 2017. Yield water and nitrogen use efficiencies of sprinkler irrigated wheat grown under different irrigation and nitrogen levels in an arid region. Agriculture water management. 187.232-245.
2. Rathore V.S., Singh J.P., **Bhardwaj S.**, Nathawat N.S., Kumar M., Roy M.M. 2015. Potential of native shrubs Haloxylon salicornicum and Calligonum polygonoides for

- restoration of degraded lands in arid western Rajasthan, India. *Environmental Management*, 55:205–216.
3. Rathore ,V.S., Nathawat, N.S., Meel, B., **Bhardwaj, S.** 2016. Cultivars and nitrogen application rates affects yield and nitrogen use efficiency of wheat in hot arid region. *Proceedings of National Academy of Science, India, Section B Biological Sciences*. DOI 10.1007/s40011-016-0729-8
  4. Soni,M.L.,Yadava,N.D and **Bhardwaj,S.** ,2016. Dynamics of leaf litter decomposition of four tree species of arid western rajasthan under varying soil moisture regimes.*International Journal of Tropical Agriculture* .34(4) .955-960.
  5. **Bhardwaj Seema**, Rathore V.S., Nathawat N.S., Birbal 2014.Effect of different land use on soil detoraiation in Bikaner district.*Bhartiya Krishi Anusandhan Patrika*, 29: 37 – 39.
  6. Soni, M.L., Yadava, N.D. and **Bhardwaj, S.** 2013. Decomposition and nitrogen release dynamics of fruit tree leaf litters in arid western Rajasthan *Annals of Arid Zone*. 52 (1):31-37.
  7. Rathore, V.S., Singh, J.P., Nathawat, N.S., Meel, B. and **Bhardwaj, S.** 2012. Response of germination and early seedling growth of phog (*Calligonum polygonoides*) and khara lana (*Haloxylon recurvum*) to temperature and salinity. *Indian Journal of Agricultural Sciences*, 82 (2): 169 – 171.
  8. *Birbal, Rathore,V.S., Nathawat, N. S., Singh, J.P. , Bhardwaj, S. and Yadava , N.D. 2013. Effects of pruning and nutrient application on yields and quality of ber (Ziziphus mauritiana) under hot arid environment. Indian Journal of Horticulture 70(3): 340-344.*
  9. Birbal, Rathore,V.S., Nathawat, N. S., **Bhardwaj, S.**, Yadava, N.D. and Meena, S.R. 2013. Response of okra (*Abelmoschus esculentus* (L.) moench.) to irrigation methods and mulching under hot arid conditions. *International Journal of Agriculture and Statistical Sciences* 9(2) : 693-698.
  10. Birbal, Rathore,V.S., Nathawat, N. S., **Bhardwaj, S.** and Yadava, N.D. 2013. Influence of irrigation methods and mulches on pea (*pisum Sativum* L.) In ber (*ziziphus mauritiana*) based vegetable Production system under tropical climate of Rajasthan. *Legume Research* 36 (6) : 557 – 562
  11. Nathawat, N.S., Rathore ,V.S., Meel, B., **Bhardwaj, S.**,Bhargava, R.2016 Exogenous sulphhydryl improves membrane stabilization photosynthesis and antioxidant defense system in *vigna aconitifolia* L.under water stress. *Proceedings of National Academy of Science, India, Section B Biological Sciences*. DOI 10.1007/s40011-016-0825-9.