

# Curriculum Vitae

## **Salej Sood, Ph.D., ARS**

Senior Scientist, Plant Breeding & Genetics

ICAR-Central Potato Research Institute, Shimla, 171001,HP, India

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### **CURRENT EMPLOYER:**

Presently working as senior scientist, plant breeding in Indian council of Agricultural Research -Central Potato Research Institute, Shimla, HP, India from 27.03.2017. I have been associated with development of improved potato varieties for resistance to biotic stresses and processing quality. I am also involved in germplasm characterization for donor identification for late blight resistance and F<sub>1</sub> hybrid diploid breeding in potato. In addition, a project funded by ICAR and BMGF (Bill Melinda Gates Foundation) on breeding data digitization and genetic gain through genomic selection is being handled by as Principal Investigator. I have been trained on genomic selection methodology in La Trobe University, Melbourne, Australia for six months which uses genome wide marker data to predict the worth of individuals solely based on genotypic data.

### **Focus Areas:**

- Development of high yielding biotic stress-resistant varieties of potato with desired quality traits
- Evaluation of advanced hybrids for agro-morphological, tuber yield and processing traits in early and advanced clonal generations
- Digitization of potato breeding programme using 'Breeding Management System' through collaboration with 'Excellence in Breeding' and ICRISAT
- Marker assisted selection for screening of hybrids and parental lines for biotic stresses.
- Genome wide association studies for tuber yield, its components and nutritional traits, and implement genomic selection for enhanced genetic gain for traits of economic importance.
- Germplasm screening for identification of diploid accessions and transfer self-compatibility gene into putative diploid lines.

### **Key Results:**

- Involved in the development of multiple biotic stresses resistant new potato variety Kufri Karan and processing potato variety Kufri Chipsona-5
- Registration of late blight (VMT 5-1), PCN (SM/11-120) and bacterial wilt (SM/92-338) resistant genetic stocks with ICAR-NBPGR
- Identified suitable varieties for different agro-ecologies in India through stability analysis of three years data on tuber yields and dry matter
- Genotyping by sequencing of a population of 300 potato lines for genome wide association and genomic selection
- Validation of KASP markers for late blight, PVY, PCN in tetraploid population, and *Sli* and homozygosity in diploid populations
- Digitization of breeding nurseries and trials using 'Breeding Management System' (2019 onwards) and use of 'Field Book' app for digital data recording.

**PAST EMPLOYER (13-05-2010 to 25-03-2017):**

Earlier I worked at ICAR-Vivekananda Institute of Hill Agriculture (13.05.2010 – 25.03.2017), where I was looking after Small millets (Finger millet and barnyard millet) genetic improvement programme as Principal Investigator. In addition, two externally funded projects one from Department of Science and Technology, Govt. of India and one from ICAR were handled as Principal Investigator. The major objective was development of new varieties of finger millet and barnyard millet with high yield potential, quality and consumer acceptance.

**Key Result Areas:**

- Six finger millet varieties (VL 380, VL 379, VL 376, VL 352, VL 348 and VL 347) developed through pedigree method of breeding were released for cultivation by Central Variety Release Committee, Govt. of India and registered five genetic stocks with ICAR-NBPGR.
- Marker assisted selection for blast resistance in finger millet-Reported minor QTLs for agro-morphological traits, disease resistance and nutritional traits using genome wide association studies through genotyping by sequencing
- Identified three different group of accessions using multivariate analysis of barnyard millet global core collection phenotypic data
- Characterization of finger millet and barnyard millet global germplasm for nutritional and agronomic traits for donor identification and trait relationships
- Knowledge dissemination on adaptation and nutritional value of millets and potential crops through focused reviews in journals of repute.

**PAST EMPLOYER (16-10-2006 to 31-03-2010):**

Previously worked with ITC Ltd as Associate Scientist Plant Breeding to develop and improve FCV tobacco genotypes using below mentioned techniques-

- The development and evaluation of fixed recombinants by reducing breeding cycles using *in vitro* haploid breeding (Anther culture) and doubled haploid mapping populations for water use efficiency in FCV tobacco

**Key Result Areas:**

- Standardization of protocol for successful doubled haploids production.
- Screened FCV tobacco lines for root traits developed F1 hybrids among selected lines for developing doubled haploid mapping population (Collaborative Research Project with University of Agricultural Sciences, Bangalore, India)

**PAST EMPLOYER (1-02-2006 TO 13-10-2006):**

Previously worked as Senior Research Fellow at CSK HPKV Palampur to develop doubled haploids of wheat genotypes-

- Haploid development in wheat using wheat x maize and wheat x *Imperata cylindrica* system
- Successfully utilized chromosome elimination technique in wheat to produce haploids and further doubled haploids to shorten the breeding cycles

**KNOWLEDGE OF STATISTICS AND STATISTICAL SOFTWARES**

- Undergone six months postdoctoral fellowship in Centre for Agri-bioscience, La Trobe University, Melbourne, Australia on genomic selection and prediction in crop plants
- I have working knowledge of statistics particularly related to plant breeding methods and all major statistical softwares (SAS, R, PBtools and SPSS). I have undergone a 21 days training programme on “Recent Advances in Statistical Genetics” at Indian Agricultural Statistical Research Institute in Feb., 2015. I have also studied two basic and advanced statistics courses during my M.Sc. and Ph.D. programme.
- Moreover, I have been regularly using PBtools for design of experiments, R software for

multivariate analysis of phenotypic data and for genome wide association studies and genomic selection and prediction.

## QUALIFICATIONS AND EDUCATIONAL HISTORY

Examination Passed	Month/ Year of Passing	Marks obtained	Board/ University	Field of Specialization/ Subjects
Post Doc (Quantitative Genetics)	2019 (six months)	-	La Trobe University, Melbourne	Genomic Selection and prediction in crop plants
Ph.D. (Pl. Breeding)	2005	80.30%	CSK HPKV, Palampur	Major field: Plant Breeding Minor field: i. Pl. Pathology ii. Pl. Physiology
M.Sc. (Pl. Breeding)	Jan. 2002	83.00%	CSK HPKV, Palampur	Major field: Plant Breeding Minor field: Pl. Pathology
B.Sc. (Horticulture)	July, 1999	74.90%	UHF, Nauni (Solan)	Horticulture Elective: Pomology
10+2 (Non-medical)	April, 1995	72.25%	H.P.B.S.E. Dharamshala	Math, Physics, Chemistry and English
Matriculation	April, 1993	72.43%	H.P.B.S.E. Dharamshala	Math, English, Hindi, Social studies, Urdu & Science

## RESEARCH PROBLEMS

### *M.Sc. Thesis Title*

**“Genetic parameters in some elite and adapted genotypes of rice (*Oryza sativa* L.)”.**

Worked on association of different morpho-physiological traits and their direct and indirect effects on grain yield in aromatic rice varieties and worked out the selection index for yield improvement in rice (*Oryza sativa*)

### *Ph.D. Thesis Title*

**“Studies on gene action for yield and its components in linseed (*Linum usitatissimum* L.)”.**

Studied the gene action for seed yield and its component traits in Linseed (*Linum usitatissimum* L.) using triple test cross and line x tester mating design. General combiners as well as specific cross combinations were identified for seed and fibre. Promising heterotic combinations were identified for seed, fibre and dual purpose linseed.

<https://krishikosh.egranth.ac.in/handle/1/5810017311>

## COMPUTER LITERACY

- MS Office-Microsoft word, excel and power-point etc.
- Well versed with major softwares used in plant breeding and genetics.
- Have good experience of data analysis using different packages in R

## PUBLICATIONS

Research articles: >100 (Peer reviewed)

Symposium presentations: 20

Books: 2

Book chapters : 15

Popular articles : 15

Extension leaflets: 5  
Radio talks: 4  
TV Talks: 5  
Training/Extension lectures: >60

Google scholar link:

[https://scholar.google.co.in/citations?hl=en&user=tg2LWQAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=tg2LWQAAAAJ&view_op=list_works&sortby=pubdate)

### **SCHOLARSHIPS / AWARDS**

- Fellow Indian Society of Genetics and Plant Breeding, 2021
- Associate, National Academy of Agricultural Sciences, New Delhi, 2019
- Endeavour Research Fellowship award, Department of Education and Training, Govt. of Australia, 2018
- Eight best oral presentation and poster awards
- Best Scientist of the Institute award from DG, ICAR in 2016
- UCOST Young Scientist Award 2013
- Experience in independently developing tissue culture facility and working. Got an award for best infrastructure development from ITC Ltd
- ARS by ASRB in 2009
- *Merit Scholarship* during B.Sc., M. Sc. and Ph.D. Plant Breeding
- *Honour's Certificate* in M.Sc. and Ph. D. Plant Breeding

### **TRAININGS**

- Attended a training program on “Genomic Selection and Modern Experimental Training” at IRRI Phillipines from 13<sup>th</sup> February to 24<sup>th</sup> February 2023.
- Six months post-doctoral Endeavour Research Fellowship of Govt of Australia to learn Genomic Selection and Prediction at La Trobe University, Melbourne, Australia.
- Attended 21 days training on “Recent advances and accomplishments in heterosis breeding of crops from 31<sup>st</sup> Jan. 2018 to 20<sup>th</sup> Feb. 2018 at TNAU, Coimbatore.
- Attended 21 days training on “Recent Advances in Statistical Genetics from 3<sup>rd</sup> Feb. 2015 to 23<sup>rd</sup> Feb. 2015, at IASRI, New Delhi.
- Attended “International Symposium on Induced Mutation” on crop plants from 12-15<sup>th</sup> August 2008 at IAEA, Vienna, Austria
- Attended one-day seminar on Intellectual Property Rights conducted by Advanced Centre for Hill Bio-resources and Biotechnology CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur.
- Attended short-term training course on Bioinformatics & Plant Genomics sponsored by the Department of Biotechnology, Govt. of India from June 9-11, 2005, at Advanced Centre for Hill Bio-resources and Biotechnology CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur.
- Two months Computer course from NIIT (Microsoft word, Excel, Power point and Internet)

### **EXTRA CURRICULAR ACTIVITIES AND ACHIEVEMENTS**

- ◆ Worked as NSS volunteer for two years
- ◆ Two years NCC training under Senior Division of Army Wing of NCC during B.Sc. Programme and attended the National Integration camp at Amritsar.

### **PERSONAL DETAILS**

Date of birth : 24<sup>th</sup> July 1979  
Gender : Male

Citizenship : India  
Languages known : English, Hindi  
Marital Status : Married

## PUBLICATIONS RESEARCH PAPERS

1. Gaur, V.S., **Sood, S\***, Guzman, C. and Olsen, K.M. (2023). Molecular insights on the origin and development of waxy genotypes in major crop plants, Briefings in Functional Genomics, elad035, <https://doi.org/10.1093/bfgp/elad035>.
2. Mali, S., Dutta, M., Goel, K., Raturi, V., Kundu, P., Kumar, R., Gahlaut, V., Acharya, V., Gupta, V.K., **Sood, S.** and Zinta, G. (2023). High Temperature Triggers Differential Expression of JUMONJI C (JmjC) Domain-Containing Histone Demethylase Genes in Leaf and Stolon Tissues of Potato (*Solanum tuberosum* L.) Genotypes. *J Plant Growth Regul.* <https://doi.org/10.1007/s00344-023-11094-w>.
3. Bairwa, A., **Sood, S\***, Bhardwaj, V., Rawat, S., Tamanna, T., Siddappa, S., Venkatasalam, E. P., Dipta, B., Sharma, A. K., Kumar, A., Singh, B., Mhatre, P. H., Sharma, S., & Kumar, V. (2023). Identification of genes governing resistance to PCN (*Globodera rostochiensis*) through transcriptome analysis in *Solanum tuberosum*. *Functional & integrative genomics*, 23(3), 242. <https://doi.org/10.1007/s10142-023-01164-3>.
4. Siddappa, S., Sharma, N., Salaria, N., Thakur, K., Pathania, S., Singh, B., Sharma, H., **Sood, S.**, Bhardwaj, V., Thakur, A. K., Mangal, V., Kumar, V., Muruthachallam, R., Singh, K., & Tuli, R. (2023). CRISPR/Cas9-mediated editing of phytoene desaturase (PDS) gene in an important staple crop, potato. *3 Biotech*, 13(5), 129. <https://doi.org/10.1007/s13205-023-03543>.
5. Mangal, V., **Sood, S\***, Bhardwaj, V. et al. Diagnostic PCR-based markers for biotic stress resistance breeding in potatoes (*Solanum tuberosum* L.). *Australasian Plant Pathol.* 52, 227–240 (2023). <https://doi.org/10.1007/s13313-023-00915-x>
6. Bhardwaj, V., Kumar, A., Sharma, S., Singh, B., Poonam, **Sood, S.**, Dipta, B., Singh, R., Mangal, V., Siddappa, S., et al. (2023) Analysis of Genetic Diversity, Population Structure and Association Mapping for Late Blight Resistance in Potato (*Solanum tuberosum* L.) Accessions Using SSR Markers. *Agronomy* 13: 294. <https://doi.org/10.3390/agronomy13020294>
7. Kumar, A., Siddappa, S., Bhardwaj, V., Dalamu, Singh, B., Sharma, N., Dipta, B., Kumar, V., Goutam, U. and **Sood, S.\*** (2023) Generation of Asynaptic Mutants in Potato by Disrupting StDMC1 Gene Using RNA Interference Approach. *Life* 13: 174. <https://doi.org/10.3390/life13010174>
8. Dipta, B., **Sood, S\***, Devi, R., Bhardwaj, V., Mangal, V., Thakur, A.K., Kumar, V., Pandey, N.K., Rathore, A. and Singh, A.K. (2023) Digitalization of potato breeding program: Improving data collection and management. *Heliyon* 9 (2023) e12974
9. Singh M, Kumar S, Mehra R, **Sood S**, Malhotra N, Sinha R, Jamwal S and Gupta V (2022) Evaluation and identification of advanced lentil interspecific derivatives resulted in the development of early maturing, high yielding, and disease-resistant cultivars under Indian agro-ecological conditions. *Front. Plant Sci.* 13:936572. doi: 10.3389/fpls.2022.936572
10. **Sood S\***, Joshi DC, Rajashekara H, Tiwari A, Bhinda MS, Kumar A, Kant L, Pattanayak A. (2023) Deciphering the genomic regions governing major agronomic traits and blast resistance using genome wide association mapping in finger millet. *Gene* 854:147115. doi: 10.1016/j.gene.2022.147115.
11. Singh, B., Sharma, J., **Sood, S.**, Bhardwaj, V., Sundaresha, S., Dalamu, Kardile, H. B., Sharma, V., Dipta, B., Kumar, V., Dua, V.K., Goutam, U., Pandey, N. K. (2022) Genetic Variations in Tuber Dry Matter (%), Yield and Mineral Concentrations in a Diversity Panel of Tetraploid Potatoes. *Potato Research* <https://doi.org/10.1007/s11540-022-09574-9>.
12. Singh M, Kumar T, **Sood S**, Malhotra N, Rani U, Singh S, Singh I, Bindra S, Kumar S and Kumar S (2022) Identification of promising chickpea interspecific derivatives for agro-morphological and major biotic traits. *Front. Plant Sci.* 13:941372. doi: 10.3389/fpls.2022.941372
13. Dutta M, Raturi V, Gahlaut V, Kumar A, Sharma P, Verma V, Gupta VK, **Sood S** and Zinta G (2022) The interplay of DNA methyltransferases and demethylases with tuberization genes in potato (*Solanum tuberosum* L.) genotypes under high temperature. *Front. Plant Sci.* 13:933740. doi: 10.3389/fpls.2022.933740
14. **Sood, S.**, Bhardwaj, V., Kumar, V., Das, R., Gupta, V.K., Mangal, V., Luthra, S.K., Kumar, R., Kumar, S., Singh, R.K., Kumar, M., Rathore, A., Pandey, N.K. and Singh, A.K. (2022) Genetic progress in 50 years of potato breeding in India: Where do we stand? *European Journal of Agronomy* 141 (2022) 126620.
15. Buckseth T, Tiwari JK, Singh RK, Kumar V, Sharma AK, Dalamu D, Bhardwaj V, **Sood S**, Kumar M, Sadawarti M, Challam C, Naik S and Pandey NK (2022) Advances in innovative seed potato production systems in India. *Front. Agron.* 4:956667. doi: 10.3389/fagro.2022.956667

16. Singh, B., Sharma, J., Bhardwaj, V., **Sood, S.**, Sundaresha, S., Goutam, U., Dalamu, Kardile, H.B., Kumar, D. and Kumar, V. (2022) Genotypic variations for tuber nutrient content, dry matter and agronomic traits in tetraploid potato germplasm. *Physiol Mol Biol Plants* (June 2022) 28(6):1233–1248. <https://doi.org/10.1007/s12298-022-01197-1>.
17. **Sood, S.**, Bhardwaj, V., Kaushik, S.K., Sharma, S., Dalamu, Lal, M. and Kumar, M. (2022) Identification of superior parental lines based on BLUP breeding values in potato (*Solanum tuberosum* L.). *Indian Journal of Genetics and Plant Breeding* 82(2): 200-207.
18. Sharma D, Apoorv Tiwari, **Sood S\***, Meher PK, Anil Kumar (2022) Identification and validation of candidate genes for high calcium content in finger millet [*Eleusine coracana* (L.) Gaertn.] through genome-wide association study. *Journal of Cereal Science*, 107: 103517.
19. **Sood, S.\***, Bhardwaj, V., Chourasia, K.N., Kaur, R.P., Kumar, V., Kumar, R., Sundaresha, S., Bohar, R., Garcia-Oliveira, A.L., Singh, R.K. and Kumar, M. (2022) KASP markers validation for late blight, PCN and PVY resistance in a large germplasm collection of tetraploid potato (*Solanum tuberosum* L.). *Scientia Horticulturae* 295: 110859.
20. Mangal, V., Lal, M.K., Tiwari, R.K., Altaf, M.A., **Sood, S.**, Kumar, D., Bhardwaj, V., Singh, B., Singh, R.K., Aftab, T. (2022) Molecular Insights into the Role of Reactive Oxygen, Nitrogen and Sulphur Species in Conferring Salinity Stress Tolerance in Plants. *J Plant Growth Regul.* <https://doi.org/10.1007/s00344-022-10591-8>
21. Sharma, N., Siddappa, S., Malhotra, N., Thakur, K., Salaria, N., **Sood, S.** and Bhardwaj, V. (2022) Advances in potato functional genomics: implications for crop improvement. *Plant Cell Tiss Organ Cult* 148, 447–464. <https://doi.org/10.1007/s11240-021-02221-0>
22. Singh, B., Goutam, U., Kukreja, S., Sharma, J., **Sood, S.** and Bhardwaj, V. (2021) Potato biofortification: an effective way to fight global hidden hunger. *Physiol Mol Biol Plants* 27, 2297-2313. <https://doi.org/10.1007/s12298-021-01081-4>
23. Mangal, V., **Sood, S.**, Raigond, B., Dalamu, Thakur, A.K., Kumar, V., Singh, B., Kumar, A., Singh, R. and Bhardwaj, V. (2021) Updates on molecular markers linked to Potato Virus Y (PVY) resistance genes in Potato. *Potato Journal* 48(2): 17-24.
24. Joshi, D.C., **Sood, S.**, Gupta, A., Khulbe, R.K., Pandey, B.M., Pal, R.S., Bhinda, M.S. and Kant, L. (2021). VL Mandua 382: The first early maturing, white seeded finger millet cultivar suitable for rainfed organic agro-ecology of the Himalayan region. *Electronic Journal of Plant Breeding* 12(4):1308-1313.
25. Bhardwaj, V., Kaushik, S.K., Singh, B.P., Sharma, S., Lal, M., Dalamu, **Sood, S.\***, Singh, R., Patil, V., Srivastava, A., Kumar, V., Bairwa, A., Venkatasalam, E.P., Challam, C. and Chakrabarti, S.K. (2020). Kufri Karan-First multiple disease resistant, high yielding potato variety for cultivation in hills and plateaux of India. *Potato J* 47 (2): 97-106.
26. **Sood, S.\***, Mangal, V., Bhardwaj, V., Kardile, H., Sharma, A.K. (2021). Diploid F1 hybrid TPS potato breeding - Pipeline and prospects. *Potato J* 48 (1): 89-92.
27. **Sood, S.\***, Jeevalatha, A., Bhardwaj, V., Sundaresha, S., Kumar, A., Vanishree, G., Sharma, S. and Chakrabarti, S.K. (2021). Potato apical leaf curl disease scale for screening of advanced potato hybrids using novel agro-inoculation technique. *Potato J* 48 (1): 52-58.
28. Kardile HB, Sharma NK, Rahul, Sharma A, **Sood S**, Jena SN, Dutt S, Tiwari JK, Bhardwaj V, Yadav S and Chakrabarti SK (2020) Investigating the best suitable nuclear isolation buffer for potato flow cytometry. *Potato J* 47 (1): 65-70.
29. Singh, B., Goutam, U., Kukreja, S., Sundaresha, S., **Sood, S.**, Sharma, J. and Bhardwaj, V. (2021) Biofortification Strategies to Improve Iron Concentrations in Potato Tubers: Lessons and Future Opportunities. *Potato Research* <https://doi.org/10.1007/s11540-021-09508-x>.
30. Tomar, M., Siddappa, S., Singh, B., Bhardwaj, V., **Sood, S.**, Singh, B., Salaria, N., Thakur, K., Kumar, A., Sharma, N., and Goutam U. (2021). Validation of molecular response of tuberization in response to elevated temperature by using a transient Virus Induced Gene Silencing (VIGS) in potato. *Funct Integr Genomics* 21: 215-229. <https://doi.org/10.1007/s10142-021-00771-2>
31. **Sood, S\*.**, Kumar, A., Singh, B., Sundaresha, S. and Bhardwaj, V. (2021) Cytoplasmic genome of Indian potato varieties and breeding lines vis a vis prospects in potato breeding. *Heliyon* 7(3) e06365.
32. Gururani, K., **Sood, S.\***, Kumar, A., Joshi, D.C., Pandey, D. and Sharma, A.R. (2021) Mainstreaming Barahnaja cultivation for food and nutritional security in the Himalayan region. *Biodiversity and Conservation* 30:551-574.
33. Yadav, S., Kumar, A. and **Sood, S.\*** (2020). Unraveling the genetics of calcium content in finger millet grains through association mapping. *Indian J. Genet.* 80(4) 432-440.
34. **Sood, S.**, Bhardwaj, V., Kumar, V. and Gupta, V.K. (2020) BLUP and stability analysis of multi-environment trials of potato varieties in sub-tropical Indian conditions. *Heliyon* 6 e05525.
35. **Sood, S\*.**, Bhardwaj, V., Kaushik, S.K. and Sharma, S. (2020) Prediction based on estimated breeding values using genealogy for tuber yield and late blight resistance in auto-tetraploid potato (*Solanum tuberosum* L.). *Heliyon* 6 e05624.

36. Salaria, N., Siddappa, S., Thakur, K., Tomar, M., Goutam, U., Sharma, N., **Sood, S.**, Bhardwaj, V., Singh, B. (2020) Solanum tuberosum (CYCLING DOF FACTOR) CDF1.2 allele: A candidate gene for developing earliness in potato. South African Journal of Botany 132: 242-248.
37. **Sood S\***, Lin Z., Caruana B., Slater AT and Daetwyler HD (2020) Making the most of all data: combining non-genotyped and genotyped potato individuals with HBLUP. The Plant Genome DOI: 10.1002/tpg2.20056.
38. Chandra AK, Pandey D, Tiwari A, Sharma D, Agarwal A, **Sood S**, Kumar A (2020) An Omics Study of Iron and Zinc Homeostasis in Finger Millet: Biofortified Foods for Micronutrient Deficiency in an Era of Climate Change? OMICS A Journal of Integrative Biology 24 DOI: 10.1089/omi.2020.0095
39. Singh Baljeet, Sharma Jagdev, **Sood Salej**, Dalamu, Kardile Hemant B, Kumar Ashwani, Goutam Umesh and Bhardwaj Vinay. 2020. Genetic variability for micronutrient content in andigena potato genotypes. *Plant Cell Biotechnology and Molecular Biology* 21(3&4):1–10.
40. Tiwari, A., Sharma, D., **Sood, S.**, Jaiswal, J.P., Pachauri, S.P., Ramteke, P.W. and Kumar A. (2020) Genome-wide association mapping for seed protein content in finger millet (*Eleusine coracana*) global collection through genotyping by sequencing. Journal of Cereal Science 91: <https://doi.org/10.1016/j.jcs.2019.102888>
41. Bhardwaj V, Kaushik SK, Singh BP, Singh Rajendra, Sharma Sanjeev, Lal M, Dalamu, **Sood S**, Chakrabarti SK (2019) VMT 5–1 (IC0623450; INGR17061), a Meiotic Tetraploid (MT) Potato (*Solanum tuberosum*) with 2× Genome from Semi-Cultivated Species *S. verrucosum* and other 2× from Cultivated Potato cv. K. Lalima. Highly Resistant to Late Blight. Performs Well Under Short & Long Day Conditions. Indian Journal of Plant Genetic Resources 32(2): 268-269.
42. Bhardwaj, V., **Sood, S\***, Kumar, A., Vanishree, G., Sharma, S., Sundaresha, S., Raigond, B., Kumar, R., Bairwa, A., Lal, M., Chakrabarti, S. K. (2019) Efficiency and reliability of marker assisted selection for resistance to major biotic stresses in potato. Potato Journal 46(1): 56-66.
43. Pattanayak, A., Roy, S., **Sood, S.**, Iangrai, B., Banerjee, A., Gupta, S. and Joshi, D.C. (2019) Rice bean: a lesser known pulse with well-recognized potential. Planta <https://doi.org/10.1007/s00425-019-03196-1>
44. **Sood, S\***, Joshi, D.C., Chandra, A. and Kumar, A. (2019) Phenomics and genomics of finger millet: Current status and future prospects. Planta DOI: 10.1007/s00425-019-03159-6.
45. **Sood, S.\***, Pal, R.S., Sharma, A., Kant, L. and Pattanayak, A. (2018) Characterization of amaranth genetic resources for agro-morphological and nutritional traits in submontane Himalayan region of India. Electronic Journal of Plant Breeding 9(4): 1484-1496.
46. Hedau, NK, Pal, RS, **Sood, S**, Vasudeo CG, Kant L and Pattanayak A (2018) Biochemical characterization and variability in garden pea (*Pisum sativum* var. hortense) under cool hilly weather conditions. Indian Journal of Agricultural Sciences 88 (9): 1442-1448.
47. Joshi, D. C., Chaudhari, G.V., **Sood, S.**, Kant, L., Pattanayak, A., Zhang, K., Fan, Y., Janovská, D., Meglič, V. and Zhou, M. (2019) Revisiting the versatile buckwheat: reinvigorating genetic gains through integrated breeding and genomics approach. Planta <https://doi.org/10.1007/s00425-018-03080-4>
48. Gaur, V.S., **Sood, S.**, Tiwari, S. and Kumar, A. (2018). Genome-wide identification and characterization of seed storage proteins (SSPs) of foxtail millet (*Setaria italica* (L.) P. Beauv.). 3 Biotech (2018) 8:415 <https://doi.org/10.1007/s13205-018-1431-8>
49. Sharma, D., Tiwari, A., **Sood, S.\***, Jamra, G., Singh, N.K., Meher, P.K. and Kumar A. (2018) Genome wide association mapping of agro-morphological traits among a diverse collection of finger millet (*Eleusine coracana* L.) genotypes using SNP markers. PLoS ONE 13(8): e0199444. <https://doi.org/10.1371/journal.pone.0199444>
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