

1. **Arun kumar. R.**, Deshmukh, P.S. Singh, T.P. Kushwaha., S.R. and Kiran Bhagat (2008). Superoxide dismutase in chickpea genotypes under high temperature. *Indian J. Plant Physiol.* Vol. 13, No. 1, 88-90
2. Ravinder kumar, K.S. Hooda, J.C. Bhatt and **R Arun kumar** (2011). Influence of chemicals on the growth and yield of five species of oyster mushroom (*Pleurotus* spp.) in north-western Himalayas. *Indian Phytopath.* 64 (2): 178-181.
3. **Arun kumar R.**, R.K. Sairam, P.S. Deshmukh, Madan pal, Sangeeta khetarpal, Sunil kumar pandey, S.R. Kushwaha and T.P. Singh (2012). High temperature stress and accumulation of compatible solutes in chickpea (*Cicer arietinum* L.). *Indian J. Plant Physiol.*, 17 (2):145-150.
4. Kumar, R., C Chandrashekara, **R Arun kumar** and JC Bhatt (2012). Performance of Four Species of Oyster Mushroom (*Pleurotus* spp.) on various agro-wastes and supplements in North-western Himalayas. *J Mycol Plant Pathol*, 42: 326-331.
5. Kumar, R., Hooda, K. S.; Bhatt, J. C. and **R. Arun Kumar.** (2012). Performance evaluation of five species of oyster mushroom *Pleurotus* spp.) on various agro-wastes in north-western Himalayas. *Mushroom Research* . 21: 167-171
6. Pal R. S. , **R. Arun kumar**, Chandrashekara, C., N. K. Hedau, P. K. Agrawal and J. C. Bhatt (2013). Total phenolic, condensed tannins, ascorbic acid contents and free radical scavenging activity in some of the underutilized horticultural crops from north-western Indian Himalayas. *The Bioscan* 8(2): 617-621.
7. Jha, S. K., N. K. Singh, **R. Arun Kumar**, P. K. Agrawal, J. C. Bhatt, S. K. Guleria, A. A. Lone, R. S. Sudan, K. P. Singh and V. Mahajan (2013). Additive main effects and multiplicative interaction analysis for grain yield of short duration maize hybrids in North-Western Himalayas. *Indian J. Genet.*, 73(1): 29-35.
8. Mishra K.K., R.S. Pal, **R. Arun Kumar**, C. Chandrashekara, S.K. Jain, J.C. Bhatt (2013). Antioxidant properties of different edible mushroom species and increased bioconversion efficiency of *Pleurotus eryngii* using locally available casing materials. *Food Chemistry* 138:1557–1563.
9. Dibakar Mahanta, R. Bhattacharyya, K.A. Gopinath, M.D. Tuti, Jeevanandan K, Chandrashekara C, **Arun kumar R.**, B.L. Mina, B.M. Pandey, P.K. Mishra, J.K. Bisht, A.K. Srivastva, J.C. Bhatt (2013). Influence of farmyard manure application and mineral fertilization on yield sustainability, carbon sequestration potential and

soil property of garden pea–French bean cropping system in the Indian Himalayas. *Scientia Horticulturae* : (164) 414–427.

10. Chandrashekara C., Jha, S.K. **Arun Kumar R** and Agrawal P.K. (2013) Identification of new sources of resistance to Turcicum leaf blight and Maydis leaf blight in maize (*Zea mays* L.) *SABRAO Journal of Breeding and Genetics* 46 (1) 44-55.
11. Pal, R.S., **R. Arun Kumar**, P.K. Agrawal And J.C. Bhatt (2013). Antioxidant capacity and related phytochemicals analysis of methanolic extract of two wild edible fruits from north western Indian Himalaya. *Int J Pharm Bio Sci* : 4(2): 113 – 123.
12. Dibakar Mahanta, Raj K. Rai , Shiva Dhar Mishra, **Arunkumar Raja** , Tapan J. Purakayastha, Eldho Varghese (2014). Influence of phosphorus and biofertilizers on soybean and wheat root growth and properties. *Field Crops Research* 166: 1–9.
13. Mishra, K. K., R. S. Pal, **R. Arun kumar** and J. C. Bhatt (2014). Antioxidant activities and bioactive compound determination from caps and stipes of specialty medicinal mushrooms *Calocybe indica* and *Pleurotus sajor-caju* (higher basidiomycetes) from India. *International Journal of Medicinal Mushrooms* 16(6):555-67.
14. Chandrashekara, C., **R. Arun kumar**, S.K. Pant, S.C Panday and J.C Bhatt. (2014). Forecasting model for maize turcicum leaf blight in north western Himalayas of India. *Journal of Agrometeorology* Vol 16, Special issue no.1: 193-197.
15. Mishra, K. K., R. S. Pal, **R. Arun kumar** and J. C. Bhatt (2014) Comparative study of antioxidant activities of cultivated and wild *ganoderma lucidum* (w. curt. fr.) p. karst *aphyllophoromycetideae* from north western Indian Himalayas. *The Bioscan* 9(4): 1601-1605, 2014.
16. Anuradha Bhartiya, J. P. Aditya, R. S. Pal and **R Arun Kumar** (2014) Genetic Variability in Black Soybean Genotypes for Agro morphological and Seed Quality Traits under rainfed Condition of Uttarakhand Hills”. *Soybean Research* Special Issue, 1-8.
17. Dibakar Mahanta, R. Bhattacharyya, D. C. Sahoo, M. D. Tuti, K. A. Gopinath, **R. Arun kumar**, B. L. Mina, B. M. Pandey, J. K. Bisht, A. K. Srivastva and J. C. Bhatt .(2015) Optimization of farmyard manure to substitute mineral fertilizer for sustainable productivity and higher carbon sequestration potential and profitability under garden pea-French bean cropping system in the Indian Himalayas. *Journal of Plant Nutrition* 38(11):1709-1733.

18. Tuti, M. D., R. S. Pal, **Arun kumar R.**, J K Bisht and J. C. Bhatt (2015) Colocasia based cropping systems affects the antioxidant properties and productivity of colocasia (*colocasia esculenta* (L.) Schott) tuber. *The Bioscan*. 10(1): 117-123.
19. Kalyana Babu, B. S. Sood , P. K. Agrawal, C. Chandrashekara, **Arun Kumar R**, Anil Kumar (2015). Molecular and Phenotypic Characterization of 149 Finger Millet Accessions Using Microsatellite and Agro-Morphological Markers. *Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.* 87: 1217–1228.
20. Salej Sood, Rajesh K. Khulbe, **Arun Kumar R**. Pawan K. Agrawal, Hari D. Upadhyaya (2015). Barnyard millet global core collection evaluation in the submontane Himalayan region of India using multivariate analysis. *The Crop Journal*: 517 – 525.
21. Pal, R.S, Anuradha Bhartiya, **R. Arun Kumar**, Lakshmi Kant, J. P. Aditya &J. K. Bisht (2015). Impact of dehulling and germination on nutrients, antinutrients, and antioxidant properties in horsegram. *J Food Sci Technol*. 53(1):337-47.
22. Pal, R.S., **R. Arun Kumar**, J. P. Aditya, P. K. Agrawal, K. K. Mishra and J. C. Bhatt (2015) Variability among Rice (*Oryza sativa* L.) Genotypes for Physicochemical, Cooking and Antioxidative properties for exploitation in quality breeding. *Electronic Journal of Plant Breeding*, 6(3): 729-737.
23. Chandran, K., M.Nisha, Mahesh P, and **Arun kumar R** (2015). *Saccharum edule* Hassk. an underutilized genetic resource of sugarcane in India. *Indian Journal of Plant Genetic Resources* 30(1): 72-76.
24. Yadav, R. P. Bisht, J. K. Pandey, B. M., **Arun kumar R**, Pattanayak, A. (2016). Cutting management versus biomass and carbon stock of oak under high density plantation in central Himalaya, India. *Applied ecology and environmental research*. 14(3): 207-214.
25. Chandran, K., M.Nisha, **Arun kumar R** and Pratibha V.V (2016).Short lop-sided internodes in *Saccharum officinarum* revisited. *Journal of Sugarcane Research* 6(1): 52-55.
26. Anubhuti Sharma, Neha Joshi, **Arun Kumar, R.**, Pawan Kumar Agrawal, Surendra Prasad.(2017). High performance liquid chromatographic analysis of phenolic compounds and their antioxidant properties from different cultivars of *Cyamopsis tetragaloba* (L.) Taub. *Microchemical journal*:133: 622-628.

27. Vasantha, S, Gomathi,R, Venkataramana, S and **Arun kumar, R.** (2017). Evaluation of sugarcane germplasm for drought and salinity tolerance. *Journal of Sugarcane Research.* 7 (1) : 35 – 45.
28. Dibakar, M, Dhar, S., Varghese, E., **Arun kumar R,** Purakayastha, T (2018). Modification of root properties with phosphate solubilizing bacteria and arbuscular mycorrhiza to reduce rock phosphate application in soybean wheat cropping system. *Ecological Engineering:* **111:31-43** .
29. Devi. K, Gomathi R., **Arun Kumar. R.,** Manimekalai. R., and A.Selvi (2018). Field tolerance and recovery potential of sugarcane varieties subjected to drought. *Ind J Plant Physiol.* 23(2):271–282.
30. Manimekalai R., Jini N., Gokul., M., Selvi A., Gomathi., R., and **Arun Kumar. R** (2018) Biochemical and physiological response to oxidative stress in cultivated sugarcane and wild genera. *Ind J Plant Physiol.* 23(2):261–270.
31. Bhagat K.P., **Arun Kumar, R.,** Kashyap, P., Khadse, A., Jhade, RK., Kushwaha S.R. and Sairam R.K. (2018). Screening of wheat (*Triticum aestivum* l.) genotypes for lodging tolerance using morpho-physiological traits. *Int.J.Curr.Microbiol.App.Sci* 7(4): 1481-1492.
32. Sharma A., **Arun kumar R.,** Sood S., Khulbe RK., Agrawal PK and Bhatt J.C (2018). Evaluation of nutraceutical properties of finger millet genotypes from mid Hills of northwestern Himalayan region of India. *Indian Journal of Experimental Biology.* Vol. 56 39-47.
33. **Arun Kumar R.,** R.K. Sairam, P.S. Deshmukh and S.R. Kushwaha (2010) “Alterations in shoot and root distribution and leaf soluble protein synthesis in chickpea (*Cicer arietinum* L.) seedlings under high temperature stress” Communicated to Pusa Agriscience.
34. Vasantha, S., and **Arun Kumar.R** (2017). Influence of hormones on tiller production, growth, cane yield and juice quality in a shy tillering sugarcane variety. *Journal of Sugarcane Research* 7 (2) : 126 – 131.
35. Vasantha, S., Venkataramana, S., Hari. K and **Arun kumar R.** (2017). Prospects of commercial hybrids of sugarcane (*Saccharum* spp.) for biomass and bioenergy production potential. *Journal of Sugarcane Research* 8 (1) : 43 – 51.
36. Dibakar M., Bhattacharyya, Ranjan., Mishra, Pankaj K.A., Gopinath Channakeshavaih, Chandrashekara Krishnan, Jeevanandan **Raja, Arunkumar** Tuti, Mangal Varghese, Eldho Pandey, Brij Kumar Bisht, Jaideep Bhatt, J.C (2017). Influence of a six-year

- organic and inorganic fertilization on the diversity of the soil culturable microorganisms in the Indian mid-Himalayas. *Applied soil ecology*: 120:229-238
37. Brindha. C., Vasantha S. and **Arun Kumar.R** (2019). The response of sugarcane genotypes subjected to salinity stress at different growth phases. *Journal of Plant Stress Physiology* 5: 28-33
 38. Geetha. P., A. S. Tayade, **Arun Kumar.R** and Rajesh Kumar (2019). Light interception in sugarcane based intercropping system. *Journal of Agrometeorology* 21 (2): 210-212
 39. Arun kumar R, Kant L, Pal RS, Stanley J, Sharma A, Raghu B.R, Panday and Bhatt JC (2019). Climate resilient wheat production under changing climatic conditions in north western Himalayas of India. *Journal of Agrometeorology*: 21 (Special issue-“NASA 2014” part-III): 16-19.
 40. Panday S.C, Stanley, J., Arun kumar R, Sher Singh and Bhatt J. C (2019). Crop planning based on probability of rainfall at Hawalbagh, Almora. *Journal of Agrometeorology* 21 (3): 397-399
 41. Chandran, K., Shibina A.K., Nisha, M., Maya. L and Arun Kumar.R (2019). SSR genotyping of germplasm collections of *Saccharum edule* hassk. *Journal of Sugarcane Research* (2018) 8 (2) : 103 – 113.
 42. Chandran , K., Gomathi, R. Nisha, M. and Arun kumar R. (2019) Breeding for waterlogging tolerance in Sugarcane. *Journal of Sugarcane Research*. 9 (1) : 29 – 44.
 43. Vasantha, S. Venkataramana S. and. Arun kumar R (2019). Sucrose synthesis and accumulation in contrasting commercial hybrids of sugarcane. *Journal of Sugarcane Research* (2019) 9 (1): 45 – 54
 44. Sharma, Anubhuti & Prasad, Surendra & Kumar, R. & Jaiswal, S. & Agrawal, P.K. & Kant, Lakshmi & Bhatt, J.C.. (2020). Analytical assessment of maize kernels for Fe, Zn, and β -carotene dense cultivars with low phytate contents. *Acta Alimentaria*. 49. 40-48. 10.1556/066.2020.49.1.6.
 45. Tayade, A., Vasantha, S., kumar, **Arun Kumar, R.,**, Anusha., Kumar, R., Hemaprabha, G. (2020). Irrigation water use efficiency and water productivity of commercial sugarcane hybrids under water-limited conditions. *Transactions of the ASABE* (American Society of Agricultural and Biological Engineers). 63. 125-132.
 46. **Arun Kumar, R.,** Vasantha, S. & Tayade, A. & Arun, Anusha & Ponnaiyan, Geetha & Hemaprabha, G..(2020). Physiological efficiency of sugarcane clones under water limited conditions. *Transactions of the ASABE* (American Society of Agricultural and Biological Engineers). 63. 133-140.

47. Krishnapriya, Vengavasi., **Arunkumar, R.**, Gomathi, Raju., Vasantha, S.. (2019). Prediction models for non-destructive estimation of total chlorophyll content in sugarcane. *Journal of Sugarcane Research*. 9. 150. 10.37580/JSR.2019.2.9.150-163.
48. Gomathi, R., V. Krishnapriya, **R. Arun Kumar**, P. Govindaraj and Bakshi Ram. (2019) Physiological Traits Imparting Drought Stress Tolerance to Promising Sugarcane (*Saccharum* spp.) Clones. *Plant Physiology Reports*. 25: 509-515
49. Brindha C., Vasantha S., **Arun kumar R** Tayade A.S (2020). Characterization of the Salt Overly Sensitive pathway genes in sugarcane under salinity stress. *Physiologia Plantarum*. 171:677–687
50. Meena, Mintu & Kumar, Ravinder & Ramaiyan, Karuppaiyan & Chhabra, Manohar & **Arun kumar R** & Mohanraj, K. & Kulshreshtha, Neeraj & Pandey, Shashi & Ram, Bakshi (2020). Biomass potential of novel interspecific and intergeneric hybrids of *Saccharum* grown in sub-tropical climates. *Scientific reports*. 10. 51:21560
51. Manoj V M, & Pushpanathan, Anunanthini & Ts, Sarath & Dharshini, S. & Narayan, Ashwin & **R., Arun** & Ramalingam, Sathishkumar & Karuppasamy, Sathyamoorthy & Subbiah, Ramanathan & Ram, Bakshi & Chinnaswamy, Appunu. (2020). Ectopic expression of DJ-1/PfpI domain containing *Erianthus arundinaceus* Glyoxalase III (EaGly III) enhances drought tolerance in sugarcane. *Plant Cell Reports*. 39: 1581-1594
52. Ashwin Narayan, J., M. Chakravarthi, Gauri Nerkar, V.M. Manoj, S. Dharshini, N. Subramonian, M.N. Premachandran, **R. Arun Kumar**, K. Krishna Surendar, G. Hemaprabha, Bakshi Ram, C. Appunu (2021) Overexpression of expansin EaEXPA1, a cell wall loosening protein enhances drought tolerance in sugarcane, *Industrial Crops and Products*, Volume 159, 2021, 113035, ISSN 0926-6690, <https://doi.org/10.1016/j.indcrop.2020.113035>
53. Tayade, A. S., P. Geetha., A. Anusha & Arun Kumar, R., Palaniswami, C., Govindaraj, P. (2021). Effects of spatial and genotypic variability on heat and energy use efficiency in sugarcane under Tropical Indian conditions. *Journal of Crop and Weed* 17. 219-225. 10.22271/09746315.2021.v17.i2.1474.
54. Pooja D., Neeraj K., Ravinder Kumar., Arun K. Raja., S. K. Pandey., Vishal Goel., Bakshi Ram (2021). Identification of Drought-Tolerant Co-canes Based on Physiological Traits, Yield Attributes and Drought Tolerance Indices. *Sugar Tech* <https://doi.org/10.1007/s12355-021-00967-7>
55. Krishnapriya, V., **Arun Kumar R**, Vasantha, S., Hari K., Arumuganathan T., Suresha S., A., Annadurai., K., Chandran, M., Nisha, D., Pooja. (2022). Multipronged Phenotyping

Approaches to Characterize Sugarcane Root Systems. *Journal of Visualized Experiments*. 10.3791/63596.

56. Krishnapriya, V., Srinivasavedantham, V., **Arun kumar, R.**, Tayade A.S., and Ram B. (2022) Photoperiodic Induction and Synchronization of Flowering in Sugarcane Hybrids for Breeding Programs. *Sugar Tech* . <https://doi.org/10.1007/s12355-022-01164-w>
57. Vasantha, S., R. **Arun kumar, R.** S. Tayade, V. Krishnapriya, Bakshi Ram, B. Ram, & S. Solomon (2022). Physiology of Sucrose Productivity and Implications of Ripeners in Sugarcane. *Sugar tech*, 24, 715-731
58. Narayanan, Jini, Manimekalai, R., Selvi A, **Arun kumar, R.** (2022). Physiological, Biochemical and Molecular Responses to Oxidative Stress in *Saccharum spontaneum*. *Sugar Tech*. 10.1007/s12355-022-01189-1.
59. Sandhu, K., Aalok, S., Gurleen K., Mintu M, **Arun Kumar R.**, Krishnapriya, V., Ashutosh, M., Kumar, S., Praveen, S., Jyotsnendra, S., Hemaprabha, G., Pathak, A., Krishnappa, Gopalareddy., Sanjeev K (2022). Integrated Approach in Genomic Selection to Accelerate Genetic Gain in Sugarcane. *Plants*. 11. 2139. 10.3390/plants11162139.
60. Mintu M, Chinnaswamy, A., **Arun Kumar R.**, K., Manimekalai, R., Vasantha, S., Gopalareddy K., Ravinder, K., Pandey, S. Hemaprabha, G. (2022). Recent Advances in Sugarcane Genomics, Physiology, and Phenomics for Superior Agronomic Traits. *Frontiers in Genetics*. 13. 10.3389/fgene.2022.854936.
61. Srinivasavedantham, V., **Raja, A.K.**, Vengavasi, K. et al. Sugarcane Stalk Traits for High Throughput Phenotyping in Restricted Irrigation Regimes. *Sugar Tech* (2023). <https://doi.org/10.1007/s12355-023-01242-7>