Personal Details

Dr. Arvind K. Verma
Scientist (SS), Horticulture (SMPA)
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Research Interest: Crop improvement and biotechnology of horticultural crops, Mutation breeding and Plant tissue culture.

M.Sc. : Indian Agricultural Research Institute, New Delhi
Ph.D. : Indian Agricultural Research Institute, New Delhi

Joining date in ICAR (yyyy/mm/dd): 2014/01/01

Google Scholar

Publications (Top 10 Publications having NAAS rating (2019) 6 and above with first or corresponding author only):

1. Verma, A.K., Sindhu, S.S., Singh, A., Kumar, A., Singh, A. and Chauhan, V.B.S. (2019). Conditioning effects of biodegradable superabsorbent polymer and vermi-products on media properties and growth of gerbera. *Ecological Engineering*, 132: 23–30.
2. Verma, A.K., Prasad, K.V. Singh, S.K. and Kumar, S. (2012). *In vitro* isolation of red coloured mutant from chimeric ray florets of chrysanthemum induced by gamma-ray. *Indian Journal of Horticulture*, 69(4): 562-567.
3. Anand, P., Singh, K.P., Prasad, K.V., Kaur, C. and Verma, A.K. (2017). Betalain estimation and callus induction in different explants of *Bougainvillea spp*. *Indian Journal of Agricultural Sciences*, 87(2): 191–196.
4. Meena, R.S., Choudhary, S., Verma, A.K., Meena, N.K. and Mali, S.C. (2021). Estimates of genetic variability, divergence, correlation and path coefficient for morphological traits in fenugreek (*Trigonella foenum-graecum* L.) genotypes. *Legume Research*, 44(3): 281-286.
5. Verma A.K., Sindhu, S.S., Anand, P., Singh, A., Chauhan, V.B.S. and Verma, S.K. (2018). Vermi products and biodegradable superabsorbent polymer improve physiological activities and leaf nutrient contents of gerbera. *Research Journal of Biotechnology*, 13 (3): 8-18.
6. Verma, A.K. and Prasad, K.V. (2019). Organogenesis and anatomical study of gamma rays induced mutant of chrysanthemum (*Chrysanthemum morifolium* Ramat.) from ray florets. *Research Journal of Biotechnology*, 14(3): 44-53.
7. Verma, A.K., Reddy, K.S. Dhansekar, P., Solanki R.K., Chauhan, V.B.S. and Singh B. (2020). Determination of gamma rays radiation dose and their effect on fennel (*Foeniculum vulgare* Mill.) seed germination and seedling growth. *Research Journal of Biotechnology*, 15 (8): 99-105.
8. Chauhan, V.B.S., Kumar, R., Behera, T.K., Yadav, R.K. and Verma, A.K. (2019). Inheritance of fruit weight and mode of gene action for yield contributing traits in tomato. *Research Journal of Biotechnology*, 14(4): 73-78.
9. Chauhan, V.B.S., Kumar, R., Behera, T.K., Yadav, R.K., Kaur, C., Choudhury, H. and Verma, A.K. (2019). Inheritance of ascorbic acid and nature of gene action for nutritional traits in tomato. *Research Journal of Biotechnology*, 14 (12): 1-7.

Patent / Technologies / Varieties / Methodologies / System etc. (Five only) :

1. Developed 43 mutants lines of fennel for dwarfness, early maturity, higher yield and quality.
2. Developed two dill elite lines (AD-S-2015-2 & AD-S-44) for high yield and quality.
3. Developed two elite lines (AA-17-S4 & AGP-2) of anise for earliness and higher yield.
4. The fennel varieties were subjected to RNA sequencing and respective transcriptome data was submitted to NCBI for documentation.
5. Developed DUS test guidelines for minor seed spices.

No. of Students Guided: M.Sc : 03 **Ph.D :** Nil

Awards / Recognitions / Fellowship (Five only):

1. Fellow of Confederation of Hort. Associations of India (CHAI), New Delhi.
2. Best Scientist Award- 2020 by ICAR-NRCSS, Ajmer Rajasthan.
3. Best paper awards in various seminar and conferences.
4. Received appreciation letter from University of Arkansas, USA.
5. Editor of many scientific Journals and magazines.

International exposure: Nil

Ongoing research projects (Institutional / external funded -as PI or CCPI):

1. Induction of genetic variability in cumin and fennel through gamma radiation.
2. Genetic improvement of cumin for higher yield and quality.