

**Name and Designation** : Dr. P. MANIVEL, Principal Scientist (Plant Breeding)  
**Date of Birth** : 13.05.1965  
**Date of Joining ICAR** : 13.02.1995  
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**Educational Qualification** : Ph.D.  
**Discipline** : Plant Breeding and Genetics



#### Service Particulars

- Scientist (1995-2002, ICAR-DGR-Junagadh)
- Sr. Scientist (2002-2007, ICAR-CPRI-Shimla)
- Principal Scientist (2007-2020, ICAR-DMAPR, Anand; 2020-Continuing, ICAR-CTRI (NIRCA))

#### Areas of Expertise for Consultancy Purpose

- Breeding for higher yield and quality in crop plants
- Breeding of Potato, Groundnut, Ashwagandha, Tobacco
- Breeding of medicinal plants

#### Research Publications (Best Ten)

##### Manivel P,

1. Manivel P., R.P. Meena, M. Suganthy, T. Janakiram and Vipin Chaudhary. 2022. Pest and Diseases of Medicinal Plants, Westvile Publishing House, New Delhi, 160 pp.
2. Manivel, P., Deore, H.B. and Nagaraja Reddy, R. 2018. Inheritance of morphological characters in Isabgol (*Plantago ovata* Forsk.). *Academia Journal of Medicinal Plants* **6(5)**: 91-95.
3. Ponnuchamy Manivel, Rama Reddy Nagaraja Reddy and Harshal Deore. 2017. Genetic diversity for root yield and its component traits in ashwagandha (*Withania somnifera* (L) Dunal) pure lines derived from JA 134 population. *Int. J. Curr. Microbiol. App. Sci.* **6(4)**: 1694-1710. (<https://doi.org/10.20546/ijcmas.2017.604.204>).
4. Basak, B.B., Saha, A., Gajbhiye, N.A. and Manivel, P. 2020. Potential of organic nutrient sources for improving yield and bioactive principle of Ashwagandha (*Withania Somnifera*) through enhanced soil fertility and biological functions. *Communication in Soil Science and Plant Analysis*, DOI. 10.1080/00103624. 2020. 1729368 (NAAS Rating 6.77)
5. Saha, A., Basak, B.B. and Manivel, P. 2020. Performance of activated carbon derived from *Cymbopogon winterianus* distillation waste for scavenging of aqueous toxic anionic dye Congo red: Comparison with commercial activated carbon. *Separation Science and Technology* **55(11)**: 1970-1983. (NAAS Rating 7.72)
6. Patel, S., Pachhigar, K., Ganvit, R., Panchal, R.R., Manivel, P., Kumar, J. and Reddy, R.R.N. 2020. Exploring flowering genes in isabgol (*Plantago ovata* Forsk.) through transcriptome analysis. *Plant Mol Biol Rep* **39**: 192-211. (NAAS Rating 7.34)
7. Patel, S., Panchal, R.R., Manivel, P. and Reddy, R.R.N. 2020. Identification of reference genes for normalization of gene expression during flowering in isabgol (*Plantago ovata* Forsk.). *Academia Journal of Medicinal Plants* **8(12)**: 001-011.
8. Nagaraja Reddy Rama Reddy and Ponnuchamy Manivel. 2019. Valuation of reference genes for gene expression studies in different tissues and genotypes of Senna (*Cassia angustifolia* Vahl.), a medicinal plant with laxative. *Academia Journal of Medicinal Plants* **7(7)**: 169-181.
9. Rucha Harishbhai Mehta, Manivel Ponnuchamy, Jitendra Kumar and Nagaraja Reddy Rama Reddy. 2016. Exploring drought stress-regulated genes in senna (*Cassia angustifolia* Vahl.): a transcriptomic approach. *Funct. Integr. Genomics* DOI 10.1007/s10142-016-0523-y. (NAAS Rating 9.06)

10. Nagaraja Reddy Rama Reddy, Rucha Harishbhai Mehta, Palak Harendrabhai Soni, Jayanti Makawana, Narendra Athamaram Gajbhiye, Manivel Ponnuchamy and Jitendra Kumar. 2015. Next generation sequencing and transcriptome analysis predicts biosynthetic pathway of sennosides from Senna (*Cassia angustifolia* Vahl.), a non-model plant with potent laxative properties. PLoS One. **10**(6): e0129422. (NAAS Rating 8.74).

#### Awards/ Honours/ Recognitions

- Board Member, Tamil Nadu Agricultural University, Coimbatore.
- Chief advisor, Tamil Nadu State Medicinal Plants Board, Chennai,
- Fellow of Professional Societies: 1. National Academy of Science, India (NASI) Allahabad; 2. National Academy of Biological Science, Chennai; 3. Indian Society of Plant Breeding, New Delhi
- Life member of scientific Societies: 15
- Reviewer for peer reviewed journals: 6
- Best scientist award: 2016
- Best citizen of India award: 2015
- President: Medicinal and Aromatic Plants Association of India (MAPAI), Directorate of Medicinal and Aromatic Plants Research, Anand.
- Chief Editor: Open Access journal of medicinal and aromatic Plants
- Countries Visited: USA, Germany, Singapore, Philippines, Malaysia, Japan and Nepal