

# Dr. SIMI S

**Assistant Professor and Head,  
Department of Fruit Science,  
College of Agriculture, Vellayani**

## **Address:**

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My research interest in the field of Fruit Science started right from the post graduation period at the Department of Pomology and Floriculture, College of Agriculture, Vellayani. My PG programme was on ‘Molecular characterisation of banana (*Musa* AAB Plantain subgroup) clones’. My PhD work on ‘Characterisation of traditional mango varieties of southern Kerala’ was the beginning of my journey to explore and conserve the traditional genetic resources of mango which are at the verge of extinction which is still being continued as part of the Annual Plan Project work on network mode funded by the Government of Kerala. My first appointment in Kerala Agricultural University was at AICRP on Floriculture Improvement at the then College of Horticulture, Vellanikkara in 2011 where I worked till 2014. Along with my experiments on Floriculture, I got the opportunity to handle UG courses on Fruit Science, since the AICRP faculties were associated with the Department of Pomology and Floriculture. I was fortunate to become a part of the team which developed the Mango DB: a database of mango varieties and landraces of the Indian subcontinent. The next two and a half years of my career was at the Department of Pomology and Floriculture, College of Agriculture, Vellayani during which I continued to handle classes and guide PG/PhD students. My transfer and posting as SMS (Horticulture) at KVK, Wayanad at Ambalavayal in 2017 was a totally different experience for me. I was closely associated with farmers, extension personnels, FPOs, VFPC, Kudumbasree master farmers, MNREGS members, CDB, ATMA, NGOs and other stake holders conducting trainings, OFTs and FLDs, conducting MDDT visits and MTA meetings, finding solutions to field problems of farmers of Wayanad district. As part of Krishi Kalyan Abhiyan several training programmes were conducted. Three skill development trainings of one month duration was conducted as Course Coordinator. During the period I was also associated with the works at RARS, Ambalavayal and the newly established College of Agriculture, Ambalavayal where I handled Horticulture courses and also carried out duties as Academic Officer. I was in charge of Programme Coordinator of KVK, Wayanad for nine months during which I got the opportunity to handle administrative role as a head of station. I was also fortunate to be a part of organising committee of the International Symposiums conducted as part of the International Flower show ‘Pooppoli’ during three consecutive years. From July 2020 to August 2021 I was posted in the Department of Vegetable Science, College of Agriculture, Vellayani. During the period I was given the charge of nodal officer of Block Level Agriculture Knowledge Centre, Varkala. I am currently placed as Assistant Professor and Head of the Department of Fruit Science, College of Agriculture, Vellayani.

## **Research Highlights**

- Collection, characterization, conservation, of mango germplasm.

## **Experience**

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Joined Kerala Agricultural University as Assistant Professor (Horticulture) in the year 2011.

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## Education

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- Graduated in Agricultural Science from Kerala Agricultural University (1999)
  - Post Graduation in Horticulture with specialisation in Fruit Science from Kerala Agricultural University (2002)
  - Ph.D in Horticulture with specialisation in Fruit Science from Kerala Agricultural University (2006)
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## Area of Specialization

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Molecular characterisation of mango and banana

Collection, characterisation and conservation of traditional mango genetic resources

Propagation of fruit crops

## Awards & Recognitions

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- KSCSTE Research Fellowship

- **Research Projects**

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### As Principal Investigator (PI)

1. State Plan project 'High density planting and tree size control in crops like mango and litchi' funded by Govt. of Kerala (concluded)
2. State Plan Project "Network project on fruit development and planting material propagation protocols and cataloguing of minor fruits" (ongoing)
3. State Plan project 'Strengthening the breeder seed production of selected newly released varieties of vegetables'.(concluded)

### As Co PI

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1. SHM Project: 'Survey, collection, establishment and maintenance of superior lines of traditional mango variety Karpooram in southern Kerala'.
2. State Plan project 'Mapping climate change induced Vulnerability and Trade – offs of Agro ecological units of Kerala'.
3. State plan project 'Crop intensification in rice fallows using pulses'.
4. State plan project 2021-22 –Station funding - Optimisation of low cost ripening technology of major fruit varieties of Kerala
5. Kerala State Biodiversity Board Project "Ecological restoration and agro biodiversity conservation in Kerala Agricultural University" with a total outlay of Rs 1.25 crores

## Publications

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### Journal Articles

1. Reshma, U.R. and **Simi, S.** 2022. Screening of Mango Landraces for Polyembryony and Confirmation of Seedling Origin using Microsatellite Markers. *Agricultural Science Digest*. 42 (2): 128-136
2. Dhanyasree, K., Rafeekher, M., **Simi, S.** and Premachandran, A. 2022. Effect of plant bio- regulators on side shoot induction in papaya (*Carica papaya*) var. Red Lady. *The Pharma Innovation J.* 11 (12): 5593- 5597.
3. Reshma, U.R. and **Simi, S.** 2021. Influence of Pre-sowing Treatments, Sowing Positions and Age of Stones after Extraction from Fruit on Germination and Vigour of Mango. *Indian Journal of Agricultural Research*, 55 (5):527-534

4. Radhakrishnan, A., Krishnan, S., Indulekha, V.P., **Simi S.** and Balan, S. 2021. Potential, Economics and Constraints of Mushroom Cultivation in Wayanad, Kerala. *J. Krishi Vigyan Kendra* 9(2) : 171-176
5. Joseph, A.V. and **Simi, S.** 2020. Evaluation of ecotypes of banana (*Musa* AAB plantain subgroup) *J. Trop. Agri.* 58 (1): 112-118
6. Reshma, U.R. and **Simi, S.** 2019. Correlation analysis of pre-sowing treatments, sowing positions and age of stones after extraction on germination of mango (*Mangifera indica* L.). *J. Pharmacogn. Phytochem.* 8(1): 1133-1138
7. Reshma, U.R. and **Simi, S.** 2019. Pre-sowing treatments in mango: Regression analysis between germination parameters and vigour *J. Trop. Agri.* 57 (1): 92-96
8. Reshma, U.R. and **Simi, S.** 2019. Effect of Pre-Sowing Treatments, Sowing Positions and Age of Stones after Extraction on Germination of Mango. *Int. J. Curr. Microbiol. App. Sci.* 8(4): 2565-2573
9. Safia, N.E and **Simi, S.** 2019. Sensory evaluation of ice creams prepared with different inclusion levels of jack fruit pulp. *Asian J. Home Sci.* 14(2):411-414
10. Radha, T., James, P., **Simi, S.**, Davis, S.P., Nazeem, P.A., Shylaja, M.R. and Mathew, D. 2018. Mango DB: a database of mango varieties and landraces of the Indian subcontinent. *Curr. Sci.* 114(10): 2022-2025
11. Joseph, A.V. and Simi, S. 2018. Characterization of ecotypes of Nendran banana (*Musa* AAB plantain subgroup) *The Asian J. Hort.* 13(2):50-54
12. **Simi, S.**, Sarada, S., Sudhadevi, P.K. 2017. Effect of pre-cooling and holding solutions on the keeping quality of cut flower anthurium andrianum var. White King. *Acta Horticulturae.* 165, 97-100
13. Sarada, S., **Simi, S.**, Sudhadevi, P.K. 2017. Maintenance of compact growth form suitable for pot culture in foliage plants using growth retardants. *Acta Horticulturae* 1165, 91-96
14. Ajithkumar, K., Rajeeven, P.K., Shobhana, A., Sudhadevi, P.K., Sarada, S. and **Simi, S.** 2013. Effect of Pulsing and Holding Solutions on Vase Life of Dendrobium cv. Sonia 17. *The Asian J. Hort.* 8(2): 726-728
15. **Simi, S.** and Rajmohan, K. 2013. Evaluation of traditional mango (*Mangifera indica* L.) varieties of southern Kerala *J. Hort. Sci.* 8(2):228-233
16. **Simi, S.**, Rajmohan, K. and Soni, K.B. 2013. Molecular characterization of traditional mango (*Mangifera indica* L.) varieties of Kerala *The Asian J. Hort.* 8(1):323-327

### Papers as abstracts in conference proceedings

1. Divya, H, **Simi, S.**, Manju, P.R. and Anaswara, S. J. 2023. India's fruitful tomorrow: Exploring future fruit crops. In : Sankaran M., Karunakaran G., Anuradha Sane, Rajiv Kumar, Raja Shankar, Raghu B.R., Safeena S.A., Singh T.H., Sridhar Gutam, Nair S.A., Kanupriya C., Vivek Hegde and Sujatha S. (Eds.). Book of Abstracts, International Seminar on Exotic and Underutilized Horticultural Crops, October 17-19, 2023., Director, ICAR-IIHR, Bengaluru- 560 089, India, p.17.
2. Ananya, P.S., Rafeekher, M., **Simi, S.**, Ajith Kumar, K. Anu G. Krishnan and Bind, B. 2023. Variability in qualitative morphological characters of mangosteen (*Garciniamangostana*L.) grown in Kerala. In : Sankaran M., Karunakaran G., Anuradha Sane, Rajiv Kumar, Raja Shankar, Raghu B.R., Safeena S.A., Singh T.H., Sridhar Gutam, Nair S.A., Kanupriya C., Vivek Hegde, Sujatha S. Book of Abstracts, International Seminar on Exotic and Underutilized Horticultural Crops, October 17-19, 2023., Director, ICAR-IIHR, Bengaluru- 560 089, India, p. 23
3. Akshay, A.J. , Priya Kumari, I., Rafeekher, M., Manju R. V. , Bindu, B. and **Simi, S.** 2023. Carbon dioxide enrichment for enhanced rootstock production in jackfruit (*Artocarpus heterophyllus* Lam.). H., Sridhar Gutam,

- Nair S.A., Kanupriya C., Vivek Hegde, Sujatha S. Book of Abstracts, International Seminar on Exotic and Underutilized Horticultural Crops, October 17-19, 2023., Director, ICAR-IIHR, Bengaluru- 560 089, India, p.202.
4. **Simi, S.**, Sooraj, C. S. and Manju, P. R. 2022. Physico-chemical characterization of indigenous mango (*Mangifera indica* L.) varieties of Southern Kerala. In : Rajendran, S., Muralidhara, B. M., Rani, A. T. and Madhu, G. S. (Eds.). Souvenir and Abstracts. National Symposium on Horticultural Crops of Humid Tropics for Nutritional and Livelihood Security (NSHCHT) – 2022, 2<sup>nd</sup> to 3<sup>rd</sup> December, 2022, Hotel Crystal Hall, Madikeri, Kodagu, Karnataka. p. 114.
  5. Tharene, R. S., Manju, P. R. and **Simi, S.** 2022. Polyamines : An overview of it's function and role in humid tropical fruit crop production. In : Rajendran, S., Muralidhara, B. M., Rani, A. T. and Madhu, G. S. (Eds.). Souvenir and Abstracts. *National Symposium on Horticultural Crops of Humid Tropics for Nutritional and Livelihood Security (NSHCHT) – 2022*, 2<sup>nd</sup> to 3<sup>rd</sup> December, 2022, Hotel Crystal Hall, Madikeri, Kodagu, Karnataka. p. 176.
  6. Safia, N.E., Simi, S. and Suvija, N.V. 2018.Evaluation of African marigold (*Tagetes erecta* L.) under the humid subtropical region of Wayanad. In. *International Symposium on Orchids, Strawberry, Minor Fruits and Flowers*, Regional Agricultural Research Station, Ambalavayal, Wayanad, Kerala, India,12-16 January 2018

### Full paper in conference proceedings

1. **Simi, S.**, Sarada, S. and Sudhadevi, P.K. 2016. The effect of precooling and holding solutions on the keeping quality of cut flower Anthurium andreanum var. 'White King'. [Abstract]. In: *International Symposium on succulents and other ornamentals*; 24-27, January 2016, Wynad. International Society for Horticultural Science, Belgium, p.7.
2. Sarada, S. **Simi, S.** and Sudhadevi, P.K. 2016. Maintenance of compact growth form suitable for pot culture in foliage plants using growth retardants. In: *International Symposium on succulents and other ornamentals*; 24-27, January 2016, Wynad. International Society for Horticultural Science, Belgium, p.8.
3. **Simi, S.** and Rajmohan, K. 2016. Floral characters of traditional mango (*Mangifera indica* L.) varieties of southern Kerala. *Proceedings of National Seminar on Fruit Breeding in tropics and subtropics : An Indian perspective 27<sup>th</sup>-29<sup>th</sup> April 2016*. Indian Institute of Horticultural Research, Hessarghatta, Bengaluru p. 97

### Book/ booklet chapters:

1. **Simi, S.**, Rajmohan, K. and Soni, K.B. 2007. RAPD analysis of Banana (Musa AAB Plantain subgroup) clones. In : Keshavachandran, R., Nazeem, P.A., Girija, D., John, P.S. and Peter, K.V. (eds.) Recent Trends in Horticultural Biotechnology. Vol.2 New India Publishing Agency, New Delhi
2. Radha,T. and **Simi, S.** 2015. History of fruit breeding In : Fruit Breeding. Dinesh, M.R.(ed.) New India Publishing Agency, New Delhi, pp. 1-15
3. **Simi, S.** and Safia, N.E. 2018. *Injkrishi Wayanattil* In: Inji- Ulppaadavanum Samskaranavum. Kerala Agricultural University ; Integrated Horticulture Development Mission, pp. 50-52.
4. **Simi, S.** and Safia, N.E. 2017. Propagation of jackfruit. In Jack fruit : The Future Tree of Life, Directorate of Extension, KAU, Thrissur.
5. **Simi, S.** and Safia, N.E. 2017. *Plavu: Naaleyude kalpavriksham*. In: *Plavu: Naaleyude kalpavriksham*, Directorate of Extension, KAU, Thrissur

### Technical bulletin

1. Rafeekher, M., **Simi, S.**, Priyakumari, I., Reshmi, C. R. and Shameena, S. Instructional Manual - Practical Hort. 3105. Production Technology for fruit crops
2. Rafeekher, M., **Simi, S.**, Priyakumari, I., Reshmi, C. R. and Shameena, S. Instructional Manual - Practical Hort. 3207. Landscaping and ornamental Horticulture
3. **Simi, S.**, Najeeb Naduthodi and Ajith Kumar K. Instructional Manual - Practical. Hort 1101 Fundamentals of Horticulture
4. **Simi, S.** and Manju, P.R. 2023. Chapter 8. *Aarogyam nalkum cheru phalangal*. In *Aarogyavardhanavinu kera adhishtitha krishiyile saankethika vidyagal*- Padana sahaayi. Nihad, K., Haris, A.A. and Anithakumari, P. (Eds.) ICAR-CPCRI, Kudla P.O., Kasargod pp.90-102

## Others

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### Translation works in Indian languages

Translated **6 modules** of SWAYAM MOOC entitled “Commercial Fruit Production:

Pomegranate and guava” of Centre for online education (COE), IGNOU to Malayalam language

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### EXTENSION ACTIVITIES

Organizing / participating in exhibitions	: 10 (International – 4, State – 6)
Radio talks	: 8
Popular articles	: 13
Technical leaflets	: 20
Training manuals/ practical manuals	: 4
Seminars / symposia attended	: 10
No. of classes handled as resource person	: 100

### Student Guidance (Major Advisor)

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**M. Sc.** : 2

**Ph. D** : 3

### Student Guidance (as member, Advisory committee)

MSc. -16

PhD.- 4

### Membership in Professional Associations

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Life member –

- Indian Academy of Horticultural Sciences
- Society for Promotion of Horticulture
- The Orchid Society of India