Loren Rieseberg

Areas of Research

The selection and breeding of high quality, new variety of fruit and vegetable, the technology of improving quality and increasing efficiency

Contact Information

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Research Interests

The selection and breeding of high quality, new variety of fruit and vegetable, the technology of improving quality and increasing efficiency

Presided over the participation of some major projects

(1) fruit and vegetable quality, new varieties breeding and quality and efficiency technology research, the national major agricultural technology extension project, 2015.10-2016.12, Jurong district chief executive scientist grape.

(2) identification and resistance mechanism of differentially expressed mirnas in Botrytis Cinerea, Jiangsu Provincial Department of Science and technology, 2014.7-2018.12,moderator.

(3) introduction of New Quality Grape varieties, integrated innovation and demonstration of new cultivation models, Jurong Technical Innovation Fund project, 2015.10-2017.10, moderator.

 (4) introduction of new varieties of high quality sweet cherry, integrated innovation and demonstration of new cultivation models, key science and Technology R & D Programme in Jiangyin, 2017.7-2019.7,participants.

 (5) microRNA172 regulates expression and functional analysis of AP2-like ge

Education Background

Bachelor：Nanjing Agricultural University
Master：Nanjing Agricultural University
Doctor：Nanjing Agricultural University

Work experience

Biology Teacher, Huomiao middle school in Huaiyuan Country, Anhui Province , 2004/09-2011/06
Lecturer, post-doc, Nanjing Agricultural University, School of Horticulture,2011/06-2019

Associate professor, Nanjing Agricultural University, 2019-

R & D achievements and actual contribution to the industry

Has innovatively participated in the development of an artificial profiling method (MCID) that can improve the effect of DNA markers in identifying plant varieties, this method can really transform the results obtained by DNA marker technology into simple and practical information which can guide the identification of varieties, and make the advantages of DNA marker technology in variety identification be brought into play.

In response to the demand of nursery stock breeding enterprises, using the artificial variety identification map (MCID) developed by the team, 78 varieties (CID) of citrus including "Navel Orange" , "lemon" , "Wenzhou Satsuma" and "Kumquat" were drawn. The drawing of the appraisal map has already served the enterprise in carrying out the seedling purity appraisal, ensuring the accuracy and disease resistance of the seedling in the course of spreading, avoiding the variety confusion, and ensuring the purity of the seedling, the phenomenon of 'homonymy' and 'homonymy' is avoided.

Since 2006, the cooperation with China Citrus Research Institute and Suzhou Evergreen Fruit Tree Research Institute has helped to produce CID for the identification of different crop varieties, improved the purity and accuracy of fruit tree seedlings for sale, and saved the cost of purchasing seedlings, the loss caused by the poor quality of the seedlings was avoided, and the benefit of the company was greatly improved.

Selected Publication

- **Song C** , Fang J, Li X, Liu H, Chao C. Thomas. Identification and characterization of 27 conserved microRNAs in citrus. Planta, 2009, 230, 671-685.

- **Song C**, Fang J, Wang C, Guo L, Nicholas K, Ma Z. miR-RACE, a new efficient approach to determine the precise sequences of computationally identified trifoliate orange (*Poncirus trifoliata*) microRNAs. PLoS One, 2010, 5(6): e10861.

- **Song C**, Wang C, Zhang C, Nicholas K K, Yu H, Ma Z, Fang J. Deep sequencing discovery of novel and conserved microRNAs in trifoliate orange (*Citrus trifoliata*). BMC genomics, 2010, 11:431.

- **Song C**, Jia Q, Fang J, Li F, Wang C, Zhang Z. Computational identification of citrus microRNAs and target analysis in citrus expressed sequence tags. Plant Biology, 2010, 12: 927-934.

- **Song C**, Yu M, Han J, Wang C, Liu H, Zhang Y and Fang J.Validation and characterization of *Citrus sinensis* microRNAs and their target genes BMC Research Notes. 2012, 5:235

- Shangguan L, **Song C**, Han J, Leng X, Kibet KN, Mu Q, Kayesh E, Fang J.Characterization of regulatory mechanism of *Poncirus trifoliata* microRNAs on their target genes with an integrated strategy of newly developed PPM-RACE and RLM-RACE.Gene，2014,535(1):42-52.(Co first author, corresponding author)

- Fang J, **Song C**, Zheng Y, Chao C T. 2008. Cytosine methylation variation in elationsh cultivars. The Journal of Horticultural Sciences & Biotechnology. 83: 833-839.

- Fang J， Wang C, Yu H, Zheng Y, Li X, **Song C**, Chen J. 2009. Identification of 57 navel sweet orange cultivars with AFLP markers. The Journal of Horticultural Sciences & Biotechnology. 84: 585-590.