

Chestnut Rose (*Rosa roxburghii* Tratt): a Promising Genetic Resources for Fruit and Ornament Exploitation in China

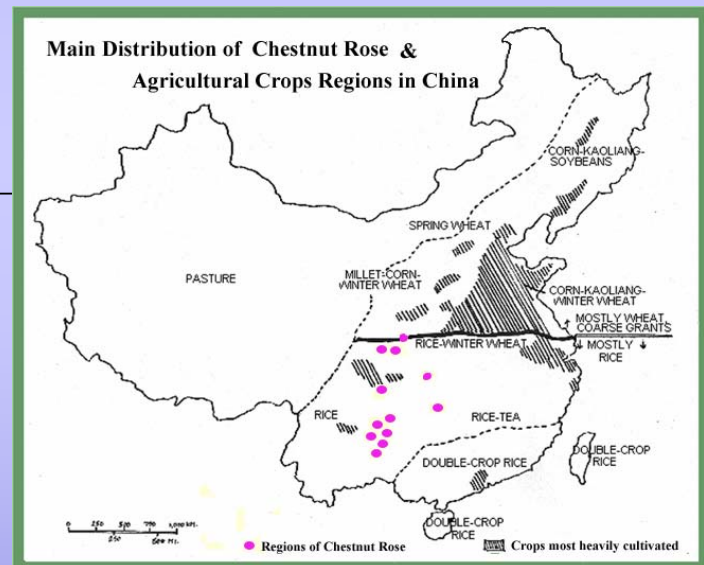
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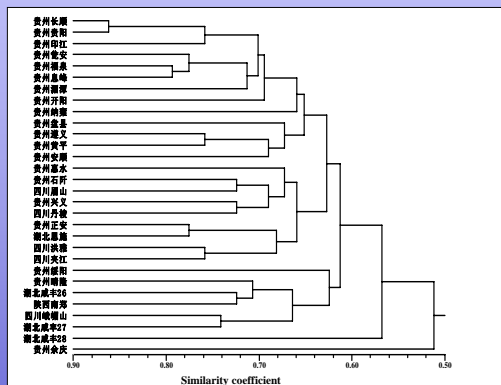
INTRODUCTION

Chestnut rose (*Rosa roxburghii* Tratt) has recently been labeled as one of the three promising new fruit crops in China due to its fruits having high content of vitamin C, displaying high levels of superoxide dismutase (SOD) activity, and therefore is believed to have senescence-retarding and cancer-preventing effects. The canes of chestnut rose are a tawny brown, turning grayish with age. Its bark is flaky on the older wood. The full, dense, mounding bush grows to approximately four to five feet tall and three to five feet in diameter. It grows into a large shrub with small light green attractive foliage, very interesting bracts and fruits. The red, pink, white, and lightly fragrant flowers open irregularly from mossy-looking buds throughout the growing season, and are followed by bristly hips that resemble chestnut. The fruits diversify in globular, spindly, oblate or columniform shape. The mature fruits smell like ripe pineapples, are aromatic and have a sour sweet taste. They become yellow or light yellow when ripe.



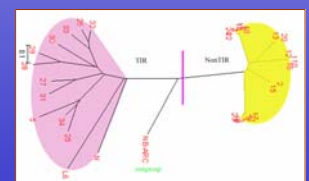
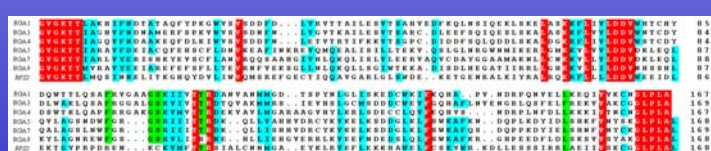
DISTRIBUTION

Chestnut rose (*Rosa roxburghii* Tratt) is native to China and widely distributed in the south-west, central-south, south of this country. The mainly cultivated provinces are Guizhou, Sichuan, Shanxi, Hubei, and Hunan.



CHARACTERIZATION OF A POWDERY MILDEW RESISTANCE GERMPLASM

An indigenous cultivar, Guinong No.6, was demonstrated highly resistant to rose powdery mildew. Resistance gene analogues (RGAs), kinase-like sequences, and defense gene analogues (DGAs) were cloned, and the resistant markers were developed based on these genes.



Acknowledgement: This research was financially supported by the National Natural Science Foundation of China (NSFC) (Nos.30260070, 30123001 and 30471201), the 863 Project of China, and Natural Science Foundation of Guizhou Province.

