

# Studies on Grafting Amiability and Adaptability of Rootstocks in the Persimmon (*Diospyros kaki* L.) in Low Altitude Area

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## Summary

The research was conducted to confer the different combinations grafting amiability and adaptability by using *Diospyros oldhamii* persimmon and New-shin persimmon as rootstocks and Fuyu and Jirou cultivars as scions at low altitude area. In accordance with amiability of different scion rootstock combinations (Fuyu/ *Diospyros oldhamii*, Jirou/ *Diospyros oldhamii*, Fuyu/Niou-Shin, and Jirou/ Niou-Shin), the ratio of scion diameter/rootstock diameter of Fuyu/ *Diospyros oldhamii* and Jirou/ *Diospyros oldhamii* were, ca. 0.95, better than using the New-Shin rootstock. The projected matured date of New-shin rootstock combinations had 10 days earlier than *Diospyros oldhamii* rootstock combinations, the former combinations could be harvested at late September. In the respect of fruit quality, the single fruit weight (280g) of *Diospyros oldhamii* rootstock combinations were heavier than New-shin rootstock combinations, and there was no notable difference of the pulp total soluble solid content (ca. 15 °Brix) among combinations. New-shin rootstock combinations possessed harder pulp (over 11.5lb/cm<sup>2</sup>). The peel tincture (a value) of *Diospyros oldhamii* rootstock combinations was higher than New-shin rootstock combinations, and the peel color was more bright red.

According to the results of adaptability experiment among combinations at low altitude area, it revealed there were no inadequate low temperature and sprouting irregular situations during normal vegetable growth, the sprouting rate of Fuyu combinations was about 50 %. In view of fruiting, the major fruit dropping duration was centralized in May, and Jirou combinations possessed higher fruiting rate.

**Key words :** persimmon, grafting, Fuyu, Jirou, amiability, adaptability

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