

INFLUENCE OF ADDITIONAL POLLINATION ON FRUIT SETTING, YIELD AND QUALITY OF XUAN VAN PUMMELO IN TUYEN QUANG PROVINCE

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Summary

Xuan Van pummelo is one of the specialty fruit trees in Tuyen Quang province, majorly planted in Yen Son district with an area of over 550 ha. Xuan Van pummelo harvest falls in early October to mid-November, earlier than harvest season of other pummelo varieties in northern provinces, thus giving high economic efficiency for farmers. Xuan Van pummelo produces a large amount of flowers but the recent fruit set rate has been low, the yield was lower than potential of the variety. In order to increase fruit set rate, thus yield and quality of pummelo Xuan Van, the study on additional pollination for 9-to-10-year-old Xuan Van pummelo with different pollen sources was carried out in Xuan Van commune, Yen Son district, Tuyen Quang province in 2015 - 2016. The results show that: additional pollination increased the fruit setting rate from 3.3% to 32.1%. In the experiment, pollination with pollens of sour pummelo obtained the highest fruit setting rate (at 32.7% in 2015 and 34.7% in 2016), and the highest fruit yield (at 15.1 kg/treatment in 2015 and 16.1 kg/treatment in 2016), in comparison with that of 0.9-1.2 kg/treatment of the control (natural pollination) at the 95% confidence level. Additinal pollination had no influences on the quality of Xuan Van pummelo.

Keywords: *Xuan Van pummelo, additional pollination, fruit setting rate, fruit quality, Tuyen Quang province.*