

Experiment of different coating methods on top-grafted scion of pear in I-Lan area.¹

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Summary

Traditionally, the high cost and labor intensive method of plastic bagging was used to wrap the scion of top-grafted pear in I-Lan area. In this study, the following methods : 1. Melted paraffin coated scion, 2. Paraffin film (Japan) wrapping, 3. “Parafilm” (USA) wrapping and 4. Plastic bagging (as control), were compared. Pears were top-grafted on January 18, 2000 and each scion was coated with one of the above-mentioned methods. Method 1 spends the least time for the completion of grafting one bud scion and the average time recorded was 1 min. and 5 sec. In other words, it took 42 days to complete the top-grafting work for one hectare, which is 12 days less than that required for method 4(CK). Method 2 and method 3 took the least time to reach bud-breaking which is 21 days after grafting. In total, the period from top-working to fruit setting were 31 – 32 days for method 2 and method 3, and 37 days for method 1 and method 4, respectively. Method 1 had the highest survival rate by 88%. It also had the highest average number (3.1) of set-fruit per bud before bagging, with 53.3% of buds set more than 3 fruit per bud. With respect to the qualities of matured fruit, method 2 had the largest average single fruit weight (466.7g), followed by 450.3g of method 1. Method 1 had the highest total solids content by 12° Brix, and the other three methods were between 10.7 – 11.4 ° Brix.

(Key words : Top grafted pear. Grafting. Stone-wax method.)

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