EFFECTS OF CUCURBITACEOUS ROOTSTOCKS ON THE YIELD AND QUALITY OF MELON KIM CO NUONG

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Summary

To evaluate the plant growth, fruit yield and quality of melon F_1 grafted onto dual rootstock which are belong to Cucurbit family. Local luffa, local pumpkin, melon F_1 were used as main rootstocks and local bottle gourd, local pumpkin were used as sub-rootstocks, which was conducted at the Practical farm of Can Tho University from December 2017 – February 2018. Melon Kim Co Nuong variety was used as scion. Experimental was designed as a split - plot with two factors including 4 replications. The main plot was consisted of 4 rootstock treatments (first grafting in nursery), including 1/ Luffa, 2/ pumkin, 3/ self-grafted (control 1), 4/ non-grafted (control 2) và sub-plot was included 3 rootstock treatments (second grafting in opened field) as pumkin, bottle gourd, non-grafted (control). Results showed that different grafts had significant effects on the abovementioned properties. The appropriate main rootstock grafting allowed for higher survival rate in nursary and opened field, sub-rootstock did not influences on survival rate. The combined sub-rootstock of bottle gourd and self-grating or non grafting had extremely significant interaction effects on the marketable yield, total yield, fruit weight. The combined rootstock of self-grafting (first grafting in nursery) and bottlegourd (second grafting in opened field) could enhance plant growth potential and lower the incidence of non harvesting plants, increase marketable yield 1,3 times higher than the control (non grafting in both nursery and opened field). The yield of grafted plants with non grafting in nursery and a bottle gourd rootstock as sub-rootstock (grafting in opened field) was 0,4 times higher than the control-farmer's prctice (non grafting in both nursery and opened field). The brix content in grafted melon fruits of different double rootstocks were not significant different.

Key words: Brix content, Cucurbitaceae, double rootstocks, melon grafting.