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# Hand Pruning and Photoselective Netting Improve Yield and Quality of Mandarins Cultivated Commercially Under Protective Screen

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We conducted two independent trials under a commercial protective screen to 1) investigate canopy management (CM) strategies to improve fruit yield and quality of mandarins and 2) evaluate the effect of colored netting on tree growth, fruit color, and internal quality of mandarins cultivated inside and outside the screenhouses. In trial 1, we tested a combination of practices: mechanical hedging/topping after bud-break stage (bloom) and late summer; hand pruning at bloom and late summer, mechanical

hedging and hand pruning at bloom and late summer; and hand pruning only at bloom. We used ‘SugarBelle’<sup>®</sup> and ‘W. Murcott’ on C-35 planted January 2017 and spaced at 8’ × 15’ (363 trees/acre). Mechanical pruning was performed using a gas-powered 3-foot-long sickle-bar knife. Hand pruning was done with lopping shears, saws, and clippers. CM using hand pruning increased yield and is a promising technique to produce mandarins under protective screens. On trial 2, we tested four screen colors, red, blue,

gray, and no netting (control), in a different set of ‘SugarBelle’<sup>®</sup> (inside a CUPS facility and open-air) and ‘W. Murcott’ (inside) mandarins grafted on C-35 rootstock within the same protected environment. The effects of the red netting were evident on tree growth and fruit color but not on the internal quality, with plants grown outside presenting a higher initial yield. Our results indicate that hand pruning and photoselective netting improve the yield of mandarins cultivated commercially under a protective screen.

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